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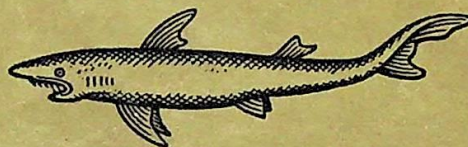
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E.A. BERG
MFG. Co. LTD.

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E. A. BERG Mfg. Co. Ltd.

(E. A. Bergs Fabriks A.-B.)

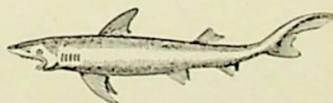
(Erik Anton Berg)

ESKILSTUNA

SWEDEN

Established in 1880

Trade Marks:



Berg

U.S. PATENT OFFICE

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DIVISION 29

Cables: BERGSBOL ESKILSTUNA SWEDEN

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Printed in Sweden.

A. B. J. O. Öberg & Sons Boktryckeri
Eskilstuna 1939.

The Berg Company with the opening of next year can look back on 60 years of successful activity as producer of tools and this catalogue is designed to provide a survey of our present programme of manufacture.

The name BERG and the "SHARK" trade mark are to-day known the World over for consistent high quality and uniformity of manufacture.

The very finest grade of Swedish Charcoal Steel is employed for the making of BERG Tools. The steel is scientifically treated and forged and tempered by experts of long experience. All finished Tools are also subjected to most careful testing.

It is small wonder, therefore, that BERG Tools give better and longer service and are **fully guaranteed against defects in workmanship and material**. BERG Tools can, therefore, **always** be relied upon.

This BERG catalogue shows a most comprehensive range of small Tools covering most trades, and cancels previous issues.

The catalogue is divided in the following parts: i. e.

L CARPENTERS' TOOLS

containing: Plane Irons, Chisels, Gouges, Handles, Sets and Display Stands and different kinds of Knives used in the trade of carpentry.

U PLIERS

In this part are also included Nail Clippers, Branding Pliers and Farriers' Tools (Shoeing Pincers).

X SHOEMAKERS' TOOLS

containing: Shoemakers' Knives and Cutting Knives, Rubber Knives, Leather and Linoleum Knives, Leather Pincers, Hole Punches, Welt Trimming and Insole Knives and different kinds of Nippers, Pliers and Knives used by shoemakers, harnessmakers &c.

Y VARIOUS TOOLS

containing: Bolt Clippers, Plate Shears, Punches and Cold Chisels, Hand Vices, Hoof Clippers, Secateurs, Sickles and Hedge-, Grass- and Pruning Shears &c.

In addition to the articles noted in the catalogue we shall be pleased to receive inquiries for tools of all description, such as we are in a position to manufacture for quantities sufficient for factory production.

In respect of minor deviations in execution we make all reservations pending the improvements in design becoming current. We are always grateful for criticism whether of negative or positive nature.

A big range of Butchers' Knives is also made and these are fully illustrated in a separate catalogue.

Eskilstuna in 1939

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The table below shows the relation between millimetres and inches.

MM.	INCH	MM.	INCH	MM.	INCH	MM.	INCH	MM.	INCH
1		26	$\frac{1}{2}$	51	2	76		101	
2	$\frac{1}{16}$	27	$\frac{11}{16}$	52		77	$\frac{3}{4}$	102	$\frac{4}{16}$
3	$\frac{1}{8}$	28		53	$\frac{21}{16}$	78	$\frac{31}{16}$	103	$\frac{41}{16}$
4	$\frac{1}{4}$	29	$\frac{11}{8}$	54	$\frac{21}{8}$	79		104	$\frac{41}{8}$
5	$\frac{5}{16}$	30	$\frac{3}{4}$	55		80	$\frac{31}{8}$	105	$\frac{41}{4}$
6		31		56	$\frac{23}{16}$	81	$\frac{33}{16}$	106	
7	$\frac{3}{8}$	32	$\frac{13}{16}$	57	$\frac{21}{4}$	82		107	$\frac{43}{16}$
8	$\frac{1}{2}$	33		58		83	$\frac{31}{4}$	108	$\frac{41}{4}$
9		34	$\frac{15}{16}$	59	$\frac{25}{16}$	84	$\frac{35}{16}$	109	
10	$\frac{5}{8}$	35	$\frac{1}{2}$	60		85		110	$\frac{45}{16}$
11	$\frac{7}{16}$	36		61	$\frac{23}{8}$	86	$\frac{33}{8}$	111	$\frac{43}{8}$
12		37	$\frac{7}{8}$	62	$\frac{27}{16}$	87		112	
13	$\frac{1}{2}$	38	$\frac{1}{2}$	63		88	$\frac{37}{16}$	113	$\frac{47}{16}$
14	$\frac{9}{16}$	39		64	$\frac{21}{2}$	89	$\frac{31}{2}$	114	
15		40	$\frac{13}{16}$	65	$\frac{23}{2}$	90		115	$\frac{41}{2}$
16	$\frac{5}{8}$	41		66		91	$\frac{39}{16}$	116	$\frac{49}{16}$
17		42	$\frac{15}{8}$	67	$\frac{25}{8}$	92	$\frac{35}{8}$	117	
18	$\frac{11}{16}$	43	$\frac{11}{16}$	68		93		118	$\frac{45}{8}$
19	$\frac{3}{4}$	44		69	$\frac{211}{16}$	94	$\frac{311}{16}$	119	$\frac{411}{16}$
20		45	$\frac{13}{4}$	70	$\frac{23}{4}$	95		120	
21	$\frac{13}{16}$	46	$\frac{113}{16}$	71		96	$\frac{33}{4}$	121	$\frac{43}{4}$
22		47		72	$\frac{213}{16}$	97	$\frac{313}{16}$	122	
23	$\frac{7}{8}$	48	$\frac{17}{8}$	73	$\frac{21}{8}$	98		123	$\frac{413}{16}$
24	$\frac{15}{16}$	49	$\frac{115}{16}$	74		99	$\frac{37}{8}$	124	$\frac{47}{8}$
25		50		75	$\frac{215}{16}$	100	$\frac{315}{16}$	125	
	$\frac{1}{2}$		$\frac{2}{2}$						$\frac{415}{16}$

In case where millimetre is indicated, please refer to millimetre.

The relation between Old Birmingham or Stubs Iron Wire Gauge (B. W. G.) and millimetres is shown in this table.

B. W. G. No.	mm	B. W. G. No.	mm	B. W. G. No.	mm	B. W. G. No.	mm
0	8.636	7	4.572	14	2.108	21	.813
1	7.620	8	4.191	15	1.829	22	.711
2	7.214	9	3.759	16	1.651	23	.635
3	6.579	10	3.404	17	1.473	24	.559
4	6.045	11	3.048	18	1.245	25	.508
5	5.588	12	2.769	19	1.067	26	.457
6	5.156	13	2.413	20	.889	27	.406

E. A. Berg Mfg. Co., Ltd., Eskilstuna, Sweden

CARPENTERS' TOOLS

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In case where millimetre is indicated, please refer to millimetre.

N. B. We do not manufacture planes or plane-stocks, illustrated in the catalogue, only plane irons.

Notes:

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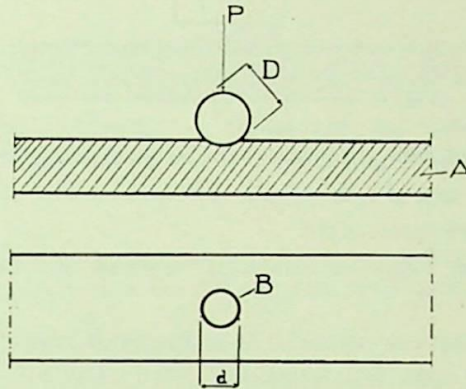
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CARPENTERS' TOOLS

HARDNESS TESTING: Brinell

Several methods are used for ascertaining the hardness of materials. The Brinell and Rockwell methods are the best known, however, and we shall therefore confine ourselves to an elementary description of these two.



A steel ball of diameter (D) is pressed into the material (A) by the force (P). The force is applied long enough to gain assurance that the penetration of the ball into the material has ceased. The impression (B) made in the material has the diameter (d).

The degree of hardness is denoted by the so-called hardness number, representing the force (H), required for producing the impression, expressed in kilograms per sq. mm of the impression surface. H is computed according to the following formula, viz.: —

$$H = \frac{2 P}{\pi D (D - \sqrt{D^2 - d^2})}$$

The testing machine is constructed that the force (P) is constant, as also the diameter (D) of the ball.

The customary relations used are:

$$\begin{aligned} P &= 3000 \text{ kg. with ball } 10 \text{ mm } D \\ P &= 750 \text{ » » » } 5 \text{ » » } \end{aligned}$$

From the foregoing it will easily be understood that the softer the material the deeper the ball will be pressed into it, and the larger the impression surface (the area of the dent). The formula shows that the constant force (P) is then divided by a larger sum, making the hardness number lower. If the material is hard the dent will be smaller. The force is then divided by a smaller sum, making the hardness number higher.

The Brinell hardness numbers range from 50 to 750.

The designation of hardness will then be 400 Br., 650 Br., &c.

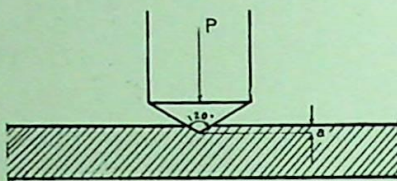
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CARPENTERS' TOOLS

HARDNESS TESTING: Rockwell

In this testing method a diamond cone with 120° taper and slightly rounded point is used in place of a steel ball.



As in the case of the Brinell test, the diamond cone is pressed into the material by a force (P), but contrary to the Brinell method, the depth of the impression and not the area is measured and the scale is chosen to make .2 mm the zero point.

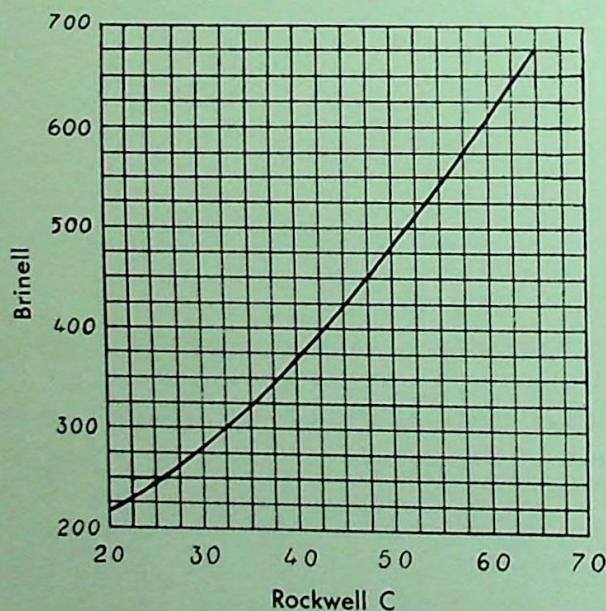
At deeper impressions than .2 mm negative hardness numbers are obtained, which must be regarded as less desirable.

Both a ball and a diamond cone can be used in a Rockwell testing machine, the hardness numbers are then indicated in accordance with the following:

$$\frac{40}{R_B} \text{ or } \frac{40}{R_C} \text{ \&c.}$$

where B stands for ball, C for cone.

The results of the two testing methods can be compared, so that a certain value obtained with one method can be expressed in the symbol of the other, the relation being shown by this diagram.



CARPENTERS' TOOLS

GRINDING AND HONING EDGED TOOLS

Only selected qualities of the most famous Swedish Charcoal Steel are used for the different purposes in the manufacture of BERG's Tools.

Based upon experienced methods in manufacturing, with the aid of modern improvements and under accurate control the steel is formed and worked into high grade tools of the most varying models and finish.

However, in order to obtain the great values of the tools, easiness in work and durability a real good care and attention is needed. In the following we will give some advices and informations in this respect.

A very hard steel is used for BERG's Tools. In order that this material shall retain its hardness and keen edge it is of the greatest importance that the regrinding is performed correctly and with suitable grindstones or grinding wheels.

Never Grind Dry (that is without applying water). The heat generated by dry-grinding will take the temper out of the thin edges very quickly, making the tool unfit for further use.

Do Not Grind On A Coarse Stone Or Wheel. This will destroy the edge and will necessitate lengthy and expensive honing in order to bring the edge back into shape.

Do Not Grind On Too Hard A Stone Or Wheel. To do so makes the risk of drawing out the temper greater than in case of softer stones or wheels.

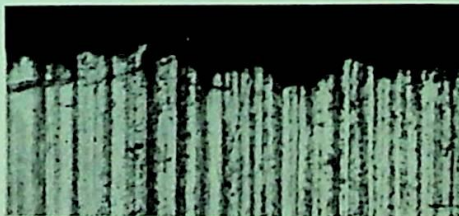
Do Not Grind On Too Small A Stone Or Wheel. It is much more difficult to obtain the correct form of edges and edge tapers with too small diameter of the stone or wheel, as it easily produces hollow grinding.

Grind Preferably On A Soft, Fine-Grained And Flat-Faced Grindstone with a liberal supply of water. The use of the small table grinding outfits, sold in the general market for the regrinding of high grade tools is utterly reprehensible.

After Regrinding Hone The Edges Properly. The honing must also be performed in water or in oil.

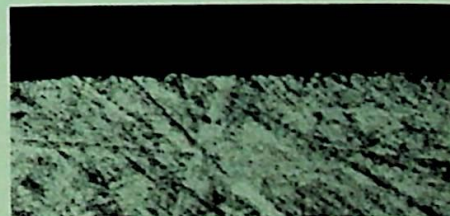
An edge that has been honed well produces lighter and better work and is more durable. Do not resort to regrinding unnecessarily but only when the edge has lost its proper form from repeated honings or if it has been damaged by an accident. For giving an idea of the great importance of honing we append here two photos of the same edge before and after honing.

Enlarged 112 times.



Wood Chisel ground on a fine grindstone.

Enlarged 112 times.



The same chisel after honing on an Arkansas oilstone.

Dry honing is never allowed but preferably in oil or in case of necessity in water.

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CARPENTERS' TOOLS

GRINDING AND HONING EDGED TOOLS

The thing to observe, when regrinding, is to obtain the correct taper or angle (α) of the edge, consideration being paid to the nature of the work and consistency of the material worked in.

As a general rule it may be said that:

the harder and tougher the material and the heavier the cut, the larger the angle, and the softer the material and the lighter the cut, the smaller the angle.

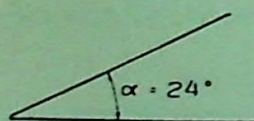
The rule is of course applicable to the labour exerted that the smaller the angle of the edge the lighter the work, but at the same time the shorter the life of the tool.

The idea to be obtained is thus to try to have such a taper of the edge as to make the labour as easy as possible together with the longest possible life of the tool.

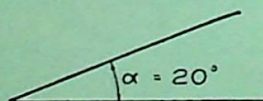
Each regrinding represents a considerable expenditure of time and money, as well as reduced value of the tool.

BERG's Plane Irons and Chisels normally have the following taper of the edges, as shown by the illustrations below.

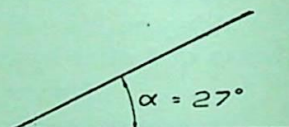
Plane Irons



Wood Chisels
(for lighter work)
Nos. 920, 921, 1026, 1027,
1030, 1031 and similar.



Wood Chisels
(for heavier work)
Nos. 923, 931, 932, 934
and similar.



These tapers are mean values suitable under ordinary conditions. In accordance with what has been said above, they may be adapted within certain limits to specific conditions.

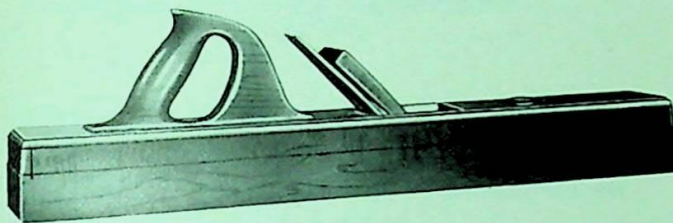
BERG's booklet No. 101, which deals in this subject can be obtained free of charge.

CARPENTERS' TOOLS

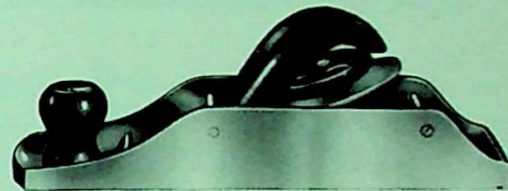
DIFFERENT KINDS OF PLANES

A plane is a tool for the surface treatment of wood. As a general thing, the object is to produce a plane and smooth surface, but planes are also used for fashioning the surface into grooves, chamfers, fillets and the like, and for making mouldings and so forth, in which case the planes are of a certain kind and shape that suit the particular purpose.

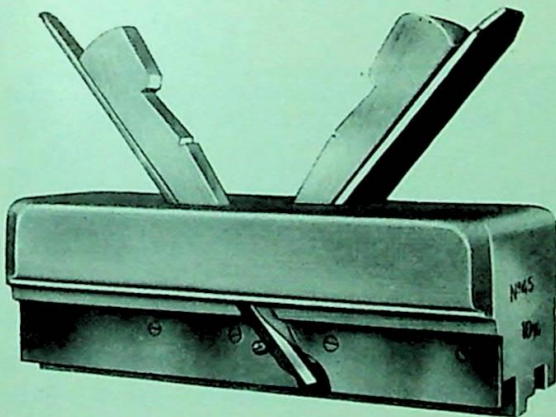
A plane consists of a stock, which may be of wood or iron, and a plane iron and devices for securing the plane iron to the stock. As a rule, but not always, there is also some kind of a handle for guiding the plane when it is in use. In addition to such divergences as that of the material of which the stock is made and the manner of fastening the plane iron in the stock, the planes differ greatly, as already intimated, according to the special use for which they are intended. Below is a list of the most common types of planes.



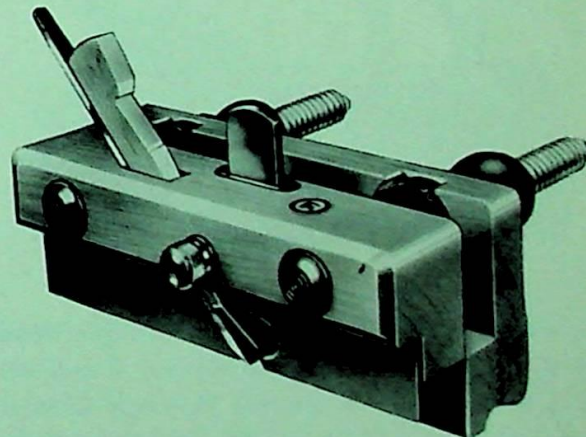
Tryng Planes. Owing to their great length (up to 2 feet) they are very suitable for planing long, straight pieces of wood. Made according to traditional wooden pattern both in Stanley and Ulmia styles, and used by all classes of carpenters and cabinetmakers.



Block Plane. The low angle at which the cutter is set makes these planes very suitable for planing across the grain, on endwood and the like. For interior woodworking, carpentry &c.



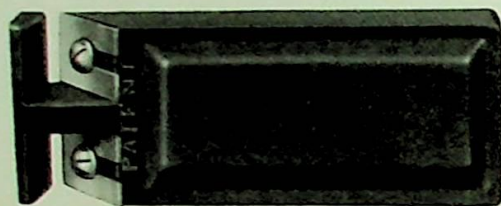
Double Match Grooving Plane. With one cutter for the groove (nearest on the photo) and one for the tongue (the farther one) this is a kind of plane still used to some extent in trade schools, pattern shops &c.



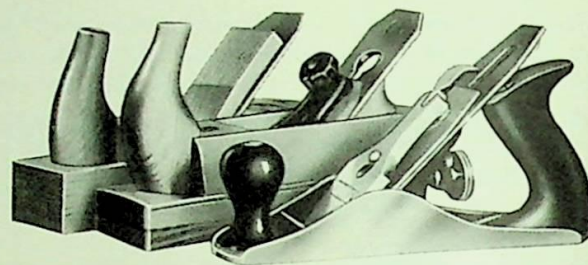
Plough Plane. Plane for cutting a groove or channel, which has adjusting devices for regulating the width (wood screws) and depth (steel bar with set screw in the centre of the stock). Used for interior woodworking and furniture making.

CARPENTERS' TOOLS

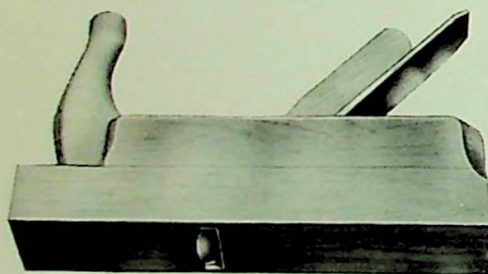
DIFFERENT KINDS OF PLANES



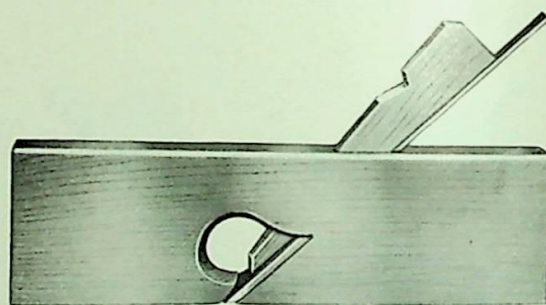
Duplex Rabbet Plane. The double cutters enable the user to plane in a door rabbet in any direction. A serviceable tool for building carpenters.



Jack Planes. Shorter than the trying planes which they resemble in other respects. Used for smooth planing by carpenters and cabinetmakers. From left to right: Old Style, Ulmia Style, Stanley Style.



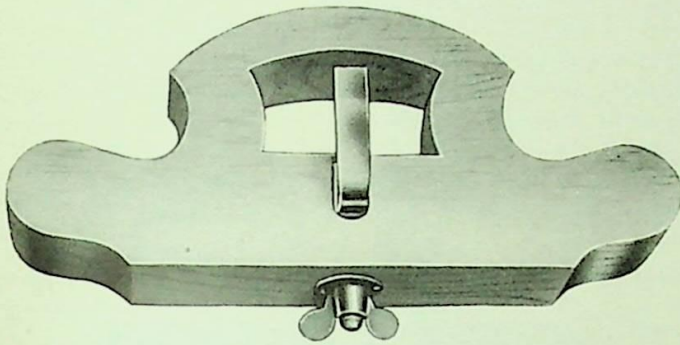
Scrub Plane. By reason of the convex edge of the cutter the plane can remove a quantity of wood quickly to produce a rough surface. Commonly used for rough planing or "hogging" by all carpenters.



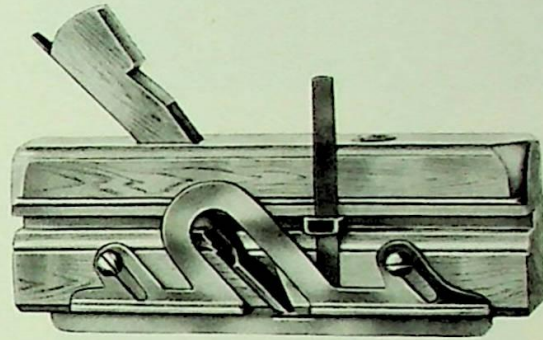
Square Rabbet Plane. The edge of the cutter being the same width as the stock it is possible to plane close into corners with this plane. Chiefly used by cabinetmakers and for fine carpentry.

CARPENTERS' TOOLS

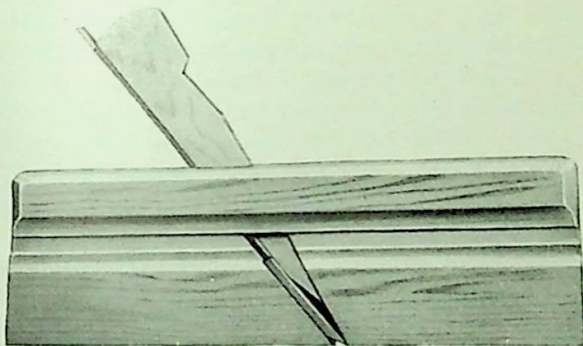
DIFFERENT KINDS OF PLANES



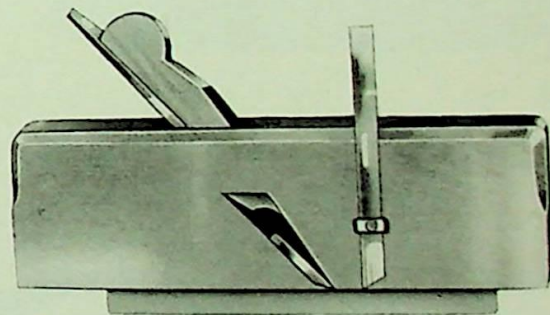
Router Plane. The stock has two handles, one on each side of the cutter which is adjustable for height, enabling criss-cross grooves to be planed down to desired depth.



Fillister Plane. Planes a rabbet to a fixed depth and width by means of adjustable gauge on both the bottom and side of the stock. The spur cuts off the wood fibres across the grain. Used for interior woodwork and furniture making.



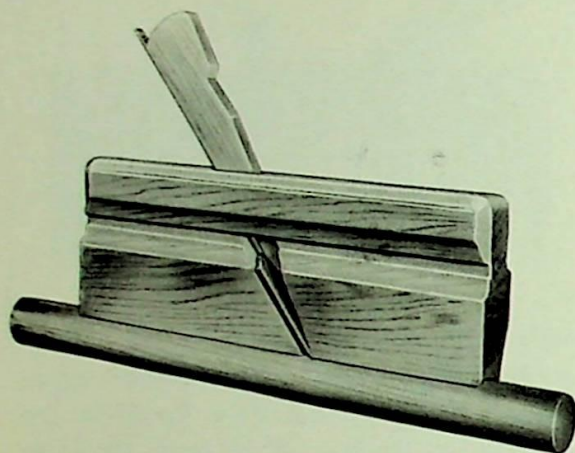
Round Plane. With its convex-edged cutter this plane rounds out recesses. Fitted with full size cutter, or cutter with tongue as in illustration. Cabinet-and patternmakers.



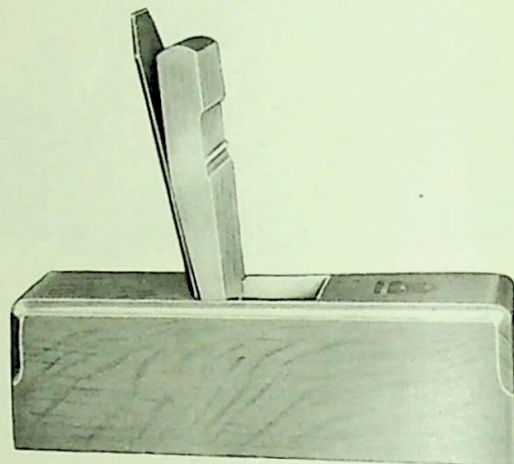
Skew Rabbet Plane. Resembles a fillister plane but has the bottom or sole set askew. Adjustable gauge for width and, at times, for depth. Spur for facilitating planing across the grain. Interior woodwork and furniture.

CARPENTERS' TOOLS

DIFFERENT KINDS OF PLANES



Bead Plane. The concave-edged cutter of this plane is used for beading and for rounding off the edges of shelves, counters &c. The cutter may be of even width the whole way or provided with a tongue, the latter shown by illustration. Interior woodwork and cabinetmaking.



Tothing Plane. The cutter is finely toothed at the edge and is set at 80° angle with the sole. The plane is used for scoring the surface of wood when gluing on veneer. Cabinetmakers.



Spokeshave. Held by the handle and pulled towards the user, the short bottom or sole makes this plane suitable for planing curved surfaces. Handy tool for all kinds of carpenter's work.

PLANE IRONS

Ordinary

- No. 900 Single Iron with slot
 » 900¹/₂ » » without slot
 » 901 Double »

These plane irons are intended for ordinary planes with wooden stock and wedge for holding the iron. The iron is thick, $\frac{5}{32}$ " to $\frac{3}{16}$ " (4–4.8 mm), according to width and made from compound steel. Owing to the thickness there is no vibration, and they are yet easy to grind because only half of the thickness consists of hard steel.

Single iron with slot (No. 900) is supplied when a back iron or cap is already available.

Single iron without slot (No. 900¹/₂) of small widths is intended for small, cheap smoothing planes without cap. Broader irons are required when the cap has no adjustment screw and is held together with the iron merely by the wooden wedge.

Make and finish: The whole edge side of the iron is ground and polished and the bevel side is ground only as far as the slot. The cap ground and polished on the outside.

French Model

- No. 894 Single Iron
 » 895 Double »

These plane irons are also intended for planes with wooden stock and wedge for holding the iron. The cap is reinforced round the slot for the set screw by means of a welded-on lug, which fits in the slot and in this way serves to guide the cap in relation to the iron.

Make and finish: The iron is made from compound steel, $\frac{5}{32}$ " to $\frac{3}{16}$ " (4–4.8 mm) thick, according to the width. Ground and polished on the edge side only as far as the slot. Cap ground and polished on the outside.

French Model (With screw adjustment of the cap)

- No. 890 Single Iron
 » 891 Double »

The cap can be adjusted to a close fit with a longitudinal screw which passes through two bored and threaded lugs on the cap. The screw fits rigidly with its ends in the slot and the round head of the screw is provided with a hole which fits in a centering point.

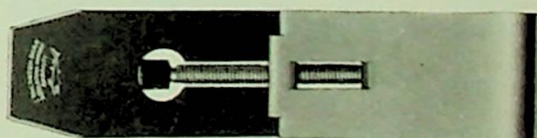
Make and finish: Made from compound steel, $\frac{5}{32}$ " to $\frac{3}{16}$ " (4–4.8 mm) thick, according to width. The iron is ground and polished on the edge side only as far as the slot. Cap ground and polished on the outside.



No. 901



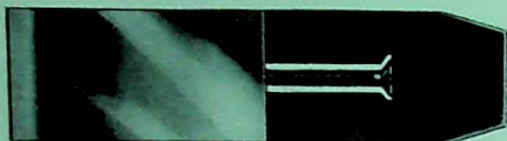
No. 895



No. 891

CARPENTERS' TOOLS

PLANE IRONS



No. 897

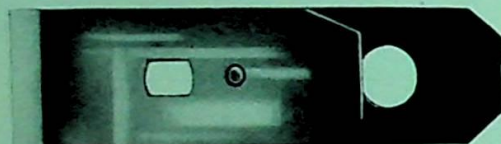
Vienna Model (With screw adjustment of the cap)

No. 896 Single Iron

» 897 Double »

The cap can be adjusted to a close fit with a longitudinal screw which passes through two bored and threaded lugs on the cap. The screw fits rigidly with its ends in the slot, and the bevelled head of the screw has slots for making the adjustment. The screw is centered in the slot by a centre point on the iron.

Make and finish: Made from compound steel, $\frac{5}{32}$ " to $\frac{3}{16}$ " (4–4.8 mm) thick, according to width. The iron is ground and polished over the whole edge side. Cap ground and polished on the outside.



No. 879

» 881

For Ulmia Planes

No. 878 Single Iron with slot

» 879 Double »

Make and finish: Made entirely from steel the plane iron having a thickness of approx. $\frac{1}{8}$ " (3 mm). The whole of the iron and the outside of the cap ground and polished.

For Ulmia Planes

No. 880 Single Iron with slot

» 881 Double »

Make and finish: Made entirely from steel, the plane iron having a thickness of approx. $\frac{1}{8}$ " (3 mm). Plane iron ground and polished only on the edge side as far as the slot.

N. B. The cap of No. 879 and No. 881 fits the fixing device of Ulmia planes but not that of Stanley planes.



No. 883

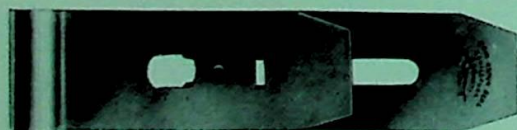
For Stanley Planes

No. 882 Single Iron with slot

» 883 Double »

Make and finish: Made entirely of steel, the plane iron being approx. $\frac{1}{8}$ " (2 mm) thick. The whole iron as well as the outside of the cap ground and polished. Fits Stanley and similar planes.

The cap has single bend.



No. 905

American Pattern

No. 904 Single Iron (Similar to No. 882)

» 905 Double »

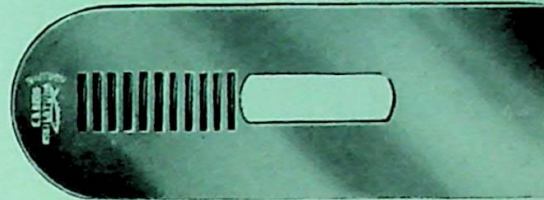
All steel plane iron of $\frac{1}{8}$ " (2 mm) thickness, the cap with double bend. Made for jack planes and trying planes of Stanley type.

PLANE IRONS

Block Plane Irons

No. 25 (as ill.) For block plane with adjustment screw
 » 26 (plain) » » » without » »

Intended for block plane of Stanley type. The iron in these planes is set at a low angle and the bevel of the edge is turned upwards. Planing across the grain, which is the chief utility of these planes, is in this way made easy. Block planes are used by joiners and cabinetmakers for various kinds of work, such as the trimming of bevels and the like.



No. 25

Skew Plane Irons

No. 908 Single Iron
 » 909 Double »

Made from compound steel. Used in skew or badger planes for planing rabbets or when it is desired to plane into corners. The skew edge of the iron makes it easier to plane across the grain in panels, wainscoting &c. For interior woodwork and fine carpentry. (The illustration shows a left-hand iron which is the most common as being that used by right-handed operators).

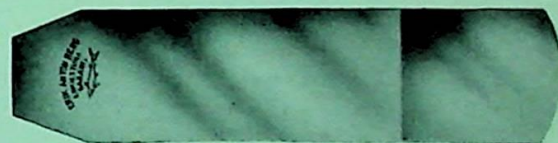


No. 909

Scrub Plane Irons

No. 902½

The outwardly rounded edge of these plane irons without a cap, in combination with the flat bottom of the plane itself, enables the plane to remove large quantities of wood with the least effort and in the shortest time. Used by all kinds of carpenters.



No. 902½

Round Nose Plane Iron with Cap

No. 902 Single Iron
 » 903 Double »

This iron has also an outwardly rounded edge which in this case conforms to the rounded bottom of the plane itself. Being fitted with cap it is adapted to plane thin shavings and is used for fine woodwork and joinery.



No. 903

CARPENTERS' TOOLS

PLANE IRONS



No. 907



No. 910

Hollow Nose Plane Irons

No. 907 Double Iron

Made from compound steel. The edge is concaved and thus adapted to plane a bead of a diameter corresponding to the curve of the edge. For hand rails, corners of counters &c. For interior woodwork and other fine carpentry.

Tooth Plane Irons

No. 910

Toothing: Coarse, medium and fine. Medium toothing is delivered when no special details are furnished.

Steel throughout of $\frac{5}{32}$ " (4 mm) thickness, and with coarse, medium and fine toothing which, in combination with the bevelled edge produces a more or less scored or rifflled surface. The iron is fitted almost vertically in the plane, and is used to prepare a smooth planed surface for gluing on veneer. The reason for this is that the glue sticks better to such scored surface than to a smooth one. Used in cabinetmaking.



No. 851



No. 852



No. 853



No. 854

Spokeshave Irons

No. 851

Width: $2\frac{1}{8}$ " (54 mm)

Thickness: .06" (1.6 »)

Width of slot: $1\frac{3}{32}$ " (10.5 »)

Best Swedish quality steel, ground and polished on the edge side.

Spokeshave

No. 852

Width: $2\frac{1}{8}$ " (54 mm)

Thickness: .06" (1.6 »)

Width of slot: $1\frac{3}{32}$ " (10.5 »)

Best Swedish quality steel, ground and polished on the edge side. The concave shape of the edge makes it suitable for planing spokes and other round objects.

No. 853

Width: $1\frac{1}{2}$ " (38 mm)

Thickness: .06" (1.6 »)

No. 854

Width: $1\frac{1}{2}$ " (38 mm)

Thickness: .06" (1.6 »)

Best Swedish quality steel, ground and polished on the edge side.

PLANE IRONS

Spokeshave Irons

No. 855

Width: $1\frac{1}{2}"$ (38 mm)

Thickness: .06" (1.6 »)

Width of slot: $\frac{9}{32}"$ (7.2 »)

Best Swedish quality steel, ground and polished on the edge side.



No. 855

No. 856

Width: $1\frac{3}{4}"$ (44.5 mm)

Thickness: .06" (1.6 »)

Width of slot: $\frac{9}{32}"$ (7.2 »)

Best Swedish quality steel, ground and polished on the edge side.



No. 856

No. 857

Width: $2\frac{1}{8}"$ (54 mm)

Thickness: .06" (1.6 »)

Width of slot: $\frac{13}{32}"$ (10.5 »)

Centre distance of adjustment slots: $1\frac{15}{32}"$ (37.25 »)

Best Swedish quality steel, ground and polished on the edge side. This type of spokes has adjustment screws which enter the slots near the edge of the cutter.



No. 857

Irons for Duplex Rabbet Planes

No. 858

Width: $1\frac{5}{16}"$ (24 mm)

Thickness: .10" (2.5 »)

Width of slot: $\frac{1}{4}"$ (6.5 »)



No. 858

No. 859

Width: $1\frac{1}{8}"$ (28.6 mm)

Thickness: .08" (2 »)

Width of slot: $\frac{9}{32}"$ (7.2 »)



No. 859

Best Swedish quality steel, ground and polished on the edge side. Used in duplex rabbet planes, an excellent tool for planing rabbets in doors and window frames. Two cutters to a plane. Used by building carpenters.

CARPENTERS' TOOLS

PLANE IRONS OR CUTTERS WITH TANG



No. 911 Single Iron
» 912 Double »



Square Rabbet Plane Irons

No. 911 Single Iron

» 912 Double »

Thickness $\frac{5}{32}$ " (4 mm), made both as single and as double iron with cap of compound steel. This rabbet plane is of the same width as the iron, which enables planing clear into corners. Used for fine woodwork and carpentry.



No. 913



Grooving Plane Irons

No. 913

Thickness $\frac{5}{32}$ " (4 mm), of compound steel and intended for grooving planes with two irons, one of the irons making the groove and the other making the tongue. The width of the groove is $\frac{5}{32}$ ", $\frac{3}{16}$ ", $\frac{5}{16}$ ", $\frac{3}{8}$ " and $\frac{7}{16}$ " (4, 5, 7.5, 9.5 and 11.5 mm) and the thickness of the tongue .02" ($\frac{1}{2}$ mm) less than these widths. Used in those exceptional cases when tonguing and grooving is executed manually, for fine woodwork and in furniture making and apprentice schools.

Separate tongues may be obtained.



No. 914

Plough Bits

No. 914

Thickness $\frac{3}{8}$ " (10 mm), of compound steel. Made in widths from $\frac{1}{8}$ " to $\frac{3}{4}$ " with $\frac{1}{16}$ " intervals. The widths correspond to those of mortising chisels, a circumstance appreciated by craftsmen. This plane is used for grooving for inserting panels in doors, chests, wainscoting &c. For woodworking and furniture making.



No. 915

Window-Sash Plane Irons

No. 915

Made of compound steel in widths from $\frac{3}{4}$ " to 2" with $\frac{1}{8}$ " between each width. The thickness is approx. $\frac{5}{32}$ " (4 mm). It is rarely used nowadays except when a window sash has to be made by hand, or in case of repairs and is used by carpenters engaged in such work.



No. 916

Round Plane Irons

No. 916

Made of compound steel in widths from $\frac{3}{4}$ " to 2" with $\frac{1}{8}$ " between each size. The thickness varies according to width being approx. $\frac{1}{8}$ " — $\frac{5}{32}$ " (3—4 mm). The round plane for iron with tang consists of a simple wooden stock with bottom and shape to suit the iron, and is used for planing recesses by patternmakers and joiners.

CARPENTERS' TOOLS

PLANE IRONS OR CUTTERS WITH TANG

Bead Plane Irons

No. 860

Iron of $\frac{5}{32}$ " (4 mm) thickness, made from compound steel. For the lighter types of bead planes using irons with tang. Used to plane beads and round mouldings, rounded edges on counters &c.



No. 860

Fillister Plane Irons

No. 861

Iron of $\frac{5}{32}$ " (4 mm) thickness, made from compound steel. Used for fillister planes with the iron inserted at right angles. Orders must contain exact dimensioned sketch or pattern. The most usual widths are $\frac{3}{4}$ ", $1\frac{1}{8}$ " and $1\frac{1}{2}$ ".



No. 861

Skew Rabbet Plane Irons

No. 862

Iron of $\frac{5}{32}$ " (4 mm) thickness, made from compound steel. Orders must contain exact dimensioned sketch or pattern. The most common dimensions are $\frac{3}{4}$ " and $1\frac{1}{8}$ " (20 and 30 mm).



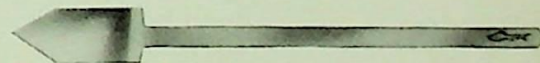
No. 862

Pointed Rabbet Plane Irons

No. 863

Iron of compound steel, $\frac{5}{32}$ " (4 mm) thick, especially designed for planes used to rabbet connected windows and doors.

Width: $\frac{3}{4}$ " (20 mm)



No. 863

Spur

No. 864

Pointed iron, approx. $\frac{1}{8}$ " (3 mm) thick, fitted on rabbet and similar planes for cutting off the fibres when planing across the grain of the wood.

Width: $\frac{5}{16}$ " (8 mm)

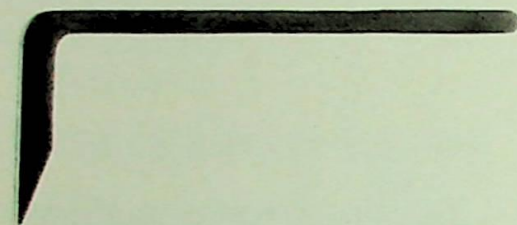


No. 864

CARPENTERS' TOOLS

PLANE IRONS

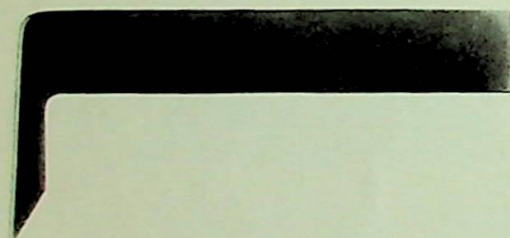
Router Plane Irons



No. 918

No. 918 Flat Irons

Made in the same widths as No. 919



No. 919

No. 919 Edge Irons

Router planes for which these irons are intended, are chiefly used to plane grooves, sawn out in different patterns, to desired depth. When ordering make sure whether the fixing device for the iron is intended for flat or edge iron.

The irons are made with the following widths of edge, viz:—

$\frac{1}{4}$ " , $\frac{5}{16}$ " , $\frac{3}{8}$ " , $\frac{7}{16}$ " and $\frac{1}{2}$ "

These planes are used by interior woodwork carpenters and cabinetmakers.

CARPENTERS' TOOLS

WOOD CHISELS

These wood chisels are made in two types: unbevelled and bevelled. The difference is that the beveling of the sides give better sight of the work and more working space and makes the chisel more convenient and easy to handle. The edge friction is also reduced which further lightens the labour.

The chief difference between Nos. 920, 921 and 922, 923 is in the thickness.

No. 920—1" is approx. $\frac{1}{8}$ " (3.5 mm) thick

» 922—1" » » $\frac{1}{4}$ " (6 ») »
measured 1" from the edge.

Firmer Chisels

No. 920 Unbevelled (Handle No. 951)

An all-steel chisel of traditional pattern and suitable for all ordinary carpentry and joinery work.

No. 921 Bevelled (Handle No. 951)

Similar to the foregoing but bevelled.

Strong Firmer Chisels

No. 922 Unbevelled (Handle No. 958)

Intended for heavier work than the two foregoing (920-921), being $\frac{1}{10}$ " ($2\frac{1}{2}$ mm) thicker. Can also be had with handles Nos. 951 or 960.

No. 923 Bevelled (Handle No. 960)

Similar to the foregoing except for the bevelling. Can also be had with handles Nos. 951 or 958.

Socket Strong Firmer Chisels

No. 924 Unbevelled (Handle No. 955)

Is thicker and stronger than No. 922 and with socket for fastening the handle, ensuring extra strength. The socket is forged in one piece with the handle. Intended for extra heavy carpentry work.

Firmer Chisels

No. 940 Unbevelled (Handle No. 951)

An especially slender all-steel chisel, longer than the usual models, and is a Dutch favourite. Can also be had with handle No. 958.

Strong Firmer Chisels

No. 942 Bevelled (Handle No. 951)

An extra long, but at the same time thick, bevelled all-steel chisel, also a Dutch favourite. Can also be had with handle No. 958.

Wood chisels with handles are ordered: e. g. 922/958.

Handles: See pages L 25 and 26.

For tables showing comparison between sizes of handles and wood chisels, see pages L 28 and 29.



No. 920/951



No. 921/951



No. 922/958



No. 923/960



No. 924/955



No. 940/951



No. 942/951

CARPENTERS' TOOLS

WOOD CHISELS



No. 962/958

Strong Firmer Chisels

Chisels with Double-bevelled Cutting Edge

No. 962 Unbevelled (Handle No. 958)

An all-steel chisel resembling No. 922, but slightly longer. The cutting edge is in the centre of the chisel and the two bevels are slightly convex. This peculiar edge makes the chisel suitable for certain special purposes, and is a Swiss favourite. Can also be had with handle No. 951.



No. 963/958

No. 963 Unbevelled (Handle No. 958)

This typical Swiss model of chisel resembles No. 962 but is slightly shorter. Can also be had with handle No. 951.



No. 972/958

Strong Firmer Chisels

No. 972 Unbevelled (Handle No. 958)

An all-steel chisel resembling No. 922, but much longer. A Swiss favourite.



No. 973/958

No. 973 Bevelled (Handle No. 958)

Similar to the foregoing except for the bevelling and is also a Swiss favourite.



No. 931/951

Strong Firmer Chisels

Compound Steel

No. 931 Unbevelled (Handle No. 951)

The chisel is steeled up to $\frac{3}{4}$ of the length and comprises a very robust series of chisels for house and structural timbering, boat building and similar heavy carpentry work. Can also be had with handle No. 958.



No. 931 F/951

No. 931 F Bevelled (Handle No. 951)

The same chisel as No. 931 but bevelled in order to make the chisel more convenient and light to work with because of the reduced edge friction which further provides better sight over the work and more working space. Can also be had with handle No. 958.

Wood chisels with handles are ordered: e. g. 973/958.

Handles: See pages L 25 and 26.

For tables showing comparison between sizes of handles and wood chisels, see pages L 28 and 29.

WOOD CHISELS

Strong Firmer Chisels

All-steel

No. 932 Unbevelled (Handle No. 958)

A strong all-steel chisel for heavy work but slightly thinner than No. 931, which it otherwise resembles. Used largely for house and other structural timbering and similar heavy carpentry work. Can also be had with handle No. 951.



No. 932/958

No. 932 F Bevelled (Handle No. 958)

The same chisel as No. 932 but bevelled for making the chisel more convenient and light to work with, and for providing better sight over the work. In respect of material, properties and utility similar to No. 932. Can also be had with handle No. 951.



No. 932 F/958

Stair Chisels

These so-called "Stair Chisels" are supplied either with or without handles. In the former case they may be fitted either with handle No. 951 of curled birch or with handle No. 958 of ordinary birch with extra broad reinforcement ring at the top end. Both these types of handles possess great resistance to blows and are very durable.

All-steel

No. 934 Unbevelled (Handle No. 951)

A short, robustly made all-steel chisel, which is used for cutting out holes for the steps of a staircase. Can also be had with handle No. 958.



No. 934/951

No. 934 F Bevelled (Handle No. 958)

Bevelled all-steel model of No. 934. Owing to the lessened side friction and greater handiness the tool is more convenient and makes the work easier. Used for the same work as No. 934. Can also be had with handle No. 951.



No. 934 F/958

For stair work these chisels may be supplemented by the Gouge No. 933. This is used for cutting out the hole for the ordinary rounded front edge of the step (see under Gouges, page L 23).

When ordering stair chisels note that the width of the chisel should correspond to the thickness of the planed and seasoned wood of which the step is to be made.

Wood chisels with handles are ordered: e. g. 934 F/958.

Handles: See pages L 25 and 26.

For tables showing comparison between sizes of handles and wood chisels, see pages L 28 and 29.

CARPENTERS' TOOLS

WOOD CHISELS: American Pattern

These chisels of American pattern have a shorter blade and a broader and flatter bevel than Swedish bevel-edged chisels of corresponding models. Because of the exceptionally broad bevel an especially free sight of the work is afforded, and the chisels are light and convenient to handle and possess a good range, a valuable quality for dovetailing and for getting into corners generally.

Length of blade				
No. 1026	Long	3 $\frac{3}{4}$ "—4 $\frac{3}{4}$ "	(95—120 mm)	
» 1027	Butt	2 $\frac{1}{2}$ "	(65	»)
» 1030	Butt	2 $\frac{1}{2}$ "	(65	»)
» 1031	Long	3 $\frac{3}{4}$ "—4 $\frac{3}{4}$ "	(95—120	»)



No. 1026/955

Socket Firmer Chisels

Long Chisel

No. 1026 (Handle No. 955)

Slightly shorter than the corresponding Swedish model and with socket for fastening the handle, ensuring extra strength. The socket is forged in one piece with the blade. Used for carpentry and joinery work of all kinds.



No. 1027/955

Butt Chisel

No. 1027 (Handle No. 955)

With socket for fastening the handle. Owing to its short length this chisel will be found very convenient in cramped spaces and is favoured by boat builders amongst others.



No. 1030/951

Firmer Chisels with Tang

Butt Chisel

No. 1030 (Handle No. 951)

The same as No. 1027 but with tang for fastening the handle.



No. 1031/951

Long Chisel

No. 1031 (Handle No. 951)

The same chisel as No. 1026 but with tang for fastening the handle.

The handles used for these chisels are of round, curled birch kind, reinforced by hoops. No. 951 fits chisels with ordinary tang while No. 955 has a turned taper which fits the forged ferrule or socket of the chisels.

Wood chisels with handles are ordered: e. g. 1031/951.

Handles: See page L 25.

For tables showing comparison between sizes of handles and wood chisels, see pages L 28 and 29.

CARPENTERS' TOOLS

WOOD-TURNING AND MORTISE CHISELS

Wood-Turning Chisels and Gouges

Wood-turning chisels and gouges are supplied either without handle or fitted with handle No. 953, a long round birchwood handle that fits the hand well and helps to keep the tool steady during turning.

Flat Turning Chisel

No. 925 (Handle No. 953)

This chisel is used for the shaping and finishing of the turned article. The edges are carefully bevelled off, which facilitates the guiding of the tool.



No. 925/953

Wood Turning Gouge

No. 926 (Handle No. 953)

The turning gouge is used for removing wood quickly during the preliminary roughing. The edges are well rounded so as to enable the tool to be moved easily along the support.



No. 926/953

Mortise Chisels

The characteristic form of a mortise chisel is the great thickness in relation to the width of the blade and cutting edge, enabling it to be used for cutting deep and narrow grooves and recesses.

No. 929 (Handle No. 951)

This is the simple kind of mortise chisel used largely for mortising doors and door frames for locks and bolts by joiners, woodworkers and cabinetmakers.



No. 929/951

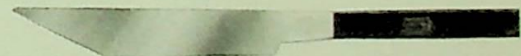
No. 939

A more simple pattern, narrower than the preceding and with the handle forged in one piece with the blade. It is used in mortising for locks and hinges of small size by the same kinds of workmen.

Made in the following sizes of thickness:

.04", .06", .08", .10" and $\frac{1}{8}$ " (1, 1.5, 2, 2.5 and 3 mm.)

Width: $\frac{7}{8}$ " (23 mm)



No. 939

Chisels and Gouges with handles are ordered:

e. g. 929/951.

Handles: See pages L 25 and 26.

For tables showing comparison between sizes of handles and chisels, gouges, see pages L 28 and 29.

CARPENTERS' TOOLS

CHIP REMOVING MORTISE CHISELS

The traditional mortise chisels are for many purposes replaced by chisels of more complicated form having facilities for removing the chips from recesses for invisible hinges.



No. 930

New Swedish Model

No. 930

This tool is largely used in mortising for hinges to be fitted invisibly in modern interior woodwork. The chisel is provided with sharp teeth on the sides which effectively extract the chips from the hole. The risk of splitting the wood from the packing of the chips in the hole is in this way minimized. Used by joiners and cabinetmakers.

Made in the following sizes of thickness:

.06", .08", .10" and $\frac{1}{8}$ " (1.5, 2, 2.5 and 3 mm)

Width: Made in 3 different widths between approx.

1" — $1\frac{3}{8}$ " (26, 31 and 36 mm)



No. 930 G

Old Swedish Model

No. 930 G

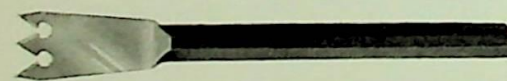
Intended for the same purposes as the preceding, the extraction of the chips being performed by the barbs on the three points.

Made in the following sizes of thickness:

.06", .08", .10" and $\frac{1}{8}$ " (1.5, 2, 2.5 and 3 mm)

Width: Made in 3 different widths between approx.

1" — $1\frac{3}{8}$ " (26, 31 and 36 mm)



No. 938

German Model

No. 938

This is similar to No. 930 G, but has slightly receding side edges and the outside points more tapering in order to facilitate the penetration of the tool.

Thickness: .05" ($1\frac{1}{4}$ mm)

Width: $\frac{7}{8}$ " (23 mm)



No. 935

Special Recessing Tool

No. 935

This chisel is used for cutting recesses for outside hinges. Supplied in standard widths for different sizes of hinges. A practical tool which, however, must be kept sharp and in good condition for making a clean cut. For joiners and woodworkers.

Width: 6 different widths between 1" and 2"

(25, 26, 31, 36, 42 and 50 mm)

Cutting depth: The 4 smaller widths = .10" (2.5 mm)

» 2 larger » = $\frac{1}{8}$ " (3 »)

CARPENTERS' TOOLS

GOUGES

Firmer Gouges

Gouges No. 927 are usually bevelled on the outside, as shown by the illustration. Gouges bevelled on the inside are supplied to special order, being then designated No. 927 A.

No. 927 (Handle No. 951)

This tool represents the normal carpenter's gouge, and is made in a large number of sizes and hollowed or curved in three different ways: $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{1}{1}$ curved, to suit different kinds of work. Electric fitters often use the full curve model in channelling for wires in mouldings, panels &c.

State curve on the order. If nothing special is stated $\frac{1}{2}$ curved will be delivered.



No. 927/951

$\frac{1}{4}$ curved

$\frac{1}{2}$ curved (=usual)

$\frac{1}{1}$ curved

Strong Firmer Gouges

All-steel

No. 933 (Handle No. 951)

This heavy all-steel gouge with inside bevelled edge is used for all coarse carpentry and housebuilding work. Being bevelled on the inside it is adapted for cutting out the rounded front end of steps in a staircase and similar work. Used for cutting holes in partitions for electric wires, pipes &c.



No. 933/951

Patternmaker's Gouges

No. 936

The distinctive feature of this gouge is that it is made with 6 different curvatures or radii (see table), making it particularly suitable for patternmakers, who regularly have to round off edges and corners in their work. For facilitating this object the cutting edge is bevelled on the inside. Patternmaker's gouges are in most cases sold without handles.

Length: approx. 10" (255 mm)

For ordering: e. g. 936-1", R = 25.



No. 936

Standard gouges with radii of curvature.

	R = 25
	R = 30
	R = 35
	R = 40
	R = 45
	R = 50

Gouges with handles are ordered: e. g. 927/951.

Handles: See page L 25.

For tables showing comparison between sizes of handles and gouges, see page L 28.

CARPENTERS' TOOLS

TAPER CURVED AND BOTTOMING GOUGES

These spoon-shaped gouges are very handy for certain general carpentry work, but are in particular used by cabinetmakers, woodworkers and woodcarvers.

Taper Curved Gouges



No. 945/950

No. 945 (Handle No. 950)



No. 945/951

No. 945 (Handle No. 951)

This gouge is only slightly hollowed and curved in the lengthwise direction, which makes it suitable for cutting out wide and shallow recesses.



Short Bottoming Gouges



No. 946/950

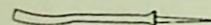
No. 946 (Handle No. 950)



No. 946/951

No. 946 (Handle No. 951)

The hollow part of this gouge is very short and more strongly curved both in the cross and lengthwise directions, making it suitable for cutting out deep and narrow recesses.



Long Bottoming Gouges



No. 947/950

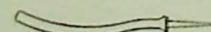
No. 947 (Handle No. 950)



No. 947/951

No. 947 (Handle No. 951)

This is a longer gouge than the preceding but with the same amount of curvature both across and in the lengthwise direction, and thus suitable for cutting deep and narrow recesses and grooves.



Gouges with handles are ordered: e. g. 947/950.

Handles: See page L 25.

For tables showing comparison between sizes of handles and gouges, see page L 28.

CARPENTERS' TOOLS

HANDLES FOR WOOD CHISELS, GOUGES &c.

No. 950 Flat Handle (Birch)

Made of prime birchwood. The flat shape is appreciated by many craftsmen on account of the firm hold it provides. It is not so apt to wobble in the hand or roll off the bench. The handle, not being reinforced, a wooden mallet should be used instead of an ordinary, unprotected hammer.

Size: 1—6 (see table on page L 28)

For ordering: e. g. 950/1



No. 950

No. 951 Round Handle (Curled birch)

Curled birch is a strong and tough wood of fine appearance. At the top and the tang the handle is reinforced by steel bands which, in conjunction with the tough wood, prevents breaking and splintering from blows, even when the handle is struck with a hammer. An exceptionally strong and durable handle.

Size: 1—9 (see table on page L 28)

For ordering: e. g. 951/1



No. 951

No. 955. Round Handle (Curled Birch)

In essentials the same as the preceding but the taper lower part fits in American style socket or ferrule chisels. This method of fixing the handle is very reliable as the hold becomes more secure the more the handle is pounded.

Size: 1—7 (see table on page L 29)

For ordering: e. g. 955/1



No. 955

For tables showing comparison between sizes of handles and wood chisels, gouges, see pages L 28 and 29.

CARPENTERS' TOOLS

HANDLES FOR WOOD CHISELS, GOUGES &c.



No. 958

No. 958 Round Handle for Heavy Chisels (Birch)

An extra strong birchwood handle, reinforced at both ends, at the top with an extra broad steel band. The handle is specially suitable on heavy types of chisels for housebuilding and structural carpentry work.

Size: 1—5 (see table on page L 29)

For ordering: e. g. 958/1



No. 960

No. 960 "Registered" Round Handle (Birch or Beech)

This special handle is made either of birch or beech and reinforced with a broad iron band at the top. Between the handle and the mitre of the chisel is a thick leather packing which provides a good joint between the chisel and the handle and removes the risk of splitting the latter. An Australian favourite.

Size: 1—5 (see table on page L 29)

For ordering: e. g. 960/1

N. B. When nothing special is stated about the kind of wood wanted, handles made of birchwood will be delivered.



No. 953

No. 953 Round Handle for Turning Chisels (Birch)

A long round handle which makes the turning chisel lie firmly in the hand and helps to guide the tool steadily.

Size: 1—5 (see table on page L 29)

For ordering: e. g. 953/1

For tables showing comparison between sizes of handles and wood chisels, gouges, see page L 29.

CARPENTERS' TOOLS

SETS AND DISPLAY STANDS

Assorted Sets of Wood Chisels and Gouges

The following wood chisels and gouges can be obtained in sets of 6, 9 or 12 irons.

Chisels: Nos. 920, 921, 1026/955, 1027/955, 1030, 1031.

Gouges: No. 927, $\frac{1}{4}$ " , $\frac{1}{2}$ or $\frac{1}{1}$ curve.

The list below shows the sizes found in each set.

Per 12

$\frac{1}{8}$ " — 1"	$\frac{1}{8}$ " , $\frac{3}{16}$ " , $\frac{1}{4}$ " , $\frac{5}{16}$ " , $\frac{3}{8}$ " , $\frac{7}{16}$ " , $\frac{1}{2}$ " (two) , $\frac{5}{8}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1"
$\frac{1}{8}$ " — $1\frac{1}{4}$ "	$\frac{1}{8}$ " , $\frac{3}{16}$ " , $\frac{1}{4}$ " , $\frac{5}{16}$ " , $\frac{3}{8}$ " , $\frac{7}{16}$ " , $\frac{1}{2}$ " , $\frac{5}{8}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1" , $1\frac{1}{4}$ "
$\frac{1}{8}$ " — $1\frac{1}{2}$ "	$\frac{1}{8}$ " , $\frac{1}{4}$ " , $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{5}{8}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1" , $1\frac{1}{8}$ " , $1\frac{1}{4}$ " , $1\frac{3}{8}$ " , $1\frac{1}{2}$ "
$\frac{1}{4}$ " — 1"	$\frac{1}{4}$ " (two) , $\frac{5}{16}$ " (two) , $\frac{3}{8}$ " (two) , $\frac{7}{16}$ " , $\frac{1}{2}$ " , $\frac{5}{8}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1"
$\frac{1}{4}$ " — $1\frac{1}{4}$ "	$\frac{1}{4}$ " , $\frac{5}{16}$ " , $\frac{3}{8}$ " , $\frac{7}{16}$ " , $\frac{1}{2}$ " (two) , $\frac{5}{8}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1" , $1\frac{1}{8}$ " , $1\frac{1}{4}$ "
$\frac{1}{4}$ " — $1\frac{1}{2}$ "	$\frac{1}{4}$ " , $\frac{5}{16}$ " , $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{5}{8}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1" , $1\frac{1}{8}$ " , $1\frac{1}{4}$ " , $1\frac{3}{8}$ " , $1\frac{1}{2}$ "

Per 9

$\frac{1}{8}$ " — 1"	$\frac{1}{8}$ " , $\frac{3}{16}$ " , $\frac{1}{4}$ " , $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{5}{8}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1"
$\frac{1}{8}$ " — $1\frac{1}{4}$ "	$\frac{1}{8}$ " , $\frac{1}{4}$ " , $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{5}{8}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1" , $1\frac{1}{4}$ "
$\frac{1}{8}$ " — $1\frac{1}{2}$ "	$\frac{1}{8}$ " , $\frac{5}{16}$ " , $\frac{1}{2}$ " , $\frac{5}{8}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1" , $1\frac{1}{4}$ " , $1\frac{1}{2}$ "
$\frac{1}{4}$ " — 1"	$\frac{1}{4}$ " , $\frac{5}{16}$ " , $\frac{3}{8}$ " , $\frac{7}{16}$ " , $\frac{1}{2}$ " , $\frac{5}{8}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1"
$\frac{1}{4}$ " — $1\frac{1}{4}$ "	$\frac{1}{4}$ " , $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{5}{8}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1" , $1\frac{1}{8}$ " , $1\frac{1}{4}$ "
$\frac{1}{4}$ " — $1\frac{1}{2}$ "	$\frac{1}{4}$ " , $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{5}{8}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1" , $1\frac{1}{4}$ " , $1\frac{1}{2}$ "

Per 6

$\frac{1}{8}$ " — 1"	$\frac{1}{8}$ " , $\frac{1}{4}$ " , $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{3}{4}$ " , 1"
$\frac{1}{8}$ " — $1\frac{1}{4}$ "	$\frac{1}{8}$ " , $\frac{5}{16}$ " , $\frac{1}{2}$ " , $\frac{3}{4}$ " , 1" , $1\frac{1}{4}$ "
$\frac{1}{8}$ " — $1\frac{1}{2}$ "	$\frac{1}{8}$ " , $\frac{1}{2}$ " , $\frac{3}{4}$ " , 1" , $1\frac{1}{4}$ " , $1\frac{1}{2}$ "
$\frac{1}{4}$ " — 1"	$\frac{1}{4}$ " , $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{5}{8}$ " , $\frac{3}{4}$ " , 1"
$\frac{1}{4}$ " — $1\frac{1}{4}$ "	$\frac{1}{4}$ " , $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{3}{4}$ " , 1" , $1\frac{1}{4}$ "
$\frac{1}{4}$ " — $1\frac{1}{2}$ "	$\frac{1}{4}$ " , $\frac{1}{2}$ " , $\frac{3}{4}$ " , 1" , $1\frac{1}{4}$ " , $1\frac{1}{2}$ "

Display Stands



With Socket Firmer Chisels No. 1026

$\frac{1}{4}$ " , $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1" and $1\frac{1}{2}$ "

With Firmer Chisels No. 1031

$\frac{1}{4}$ " , $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1" and $1\frac{1}{2}$ "

Cardboard stands (without wood chisels) can be obtained free of charge on application.

CARPENTERS' TOOLS

HANDLES: Tables

When ordering separate handles the tables below and on next page should be used showing which handles fit the different numbers and sizes of wood chisels and gouges.

Handle No. 950

Handle No. 951

Size of handle	For No. 945	For No. 946	For No. 947	Size of handle	For Nos. 920,921	For Nos. 922,923	For No. 927-1/4 curve	For No. 927-1/2 curve
	Ins.	Ins.	Ins.		Ins.	Ins.	Ins.	Ins.
1	—	—	—	1	1/16—1/4	1/8	1/4—5/16	1/8—1/4
2	1/2—3/4	1/2—1	1/2—3/4	2	5/16—1/2	3/16—5/16	3/8—1/2	5/16—7/16
3	7/8—1 1/4	—	1	3	—	—	—	—
4	1 3/8—1 1/2	—	—	4	9/16—3/4	3/8—7/16	5/8—3/4	1/2—5/8
5	—	—	—	5	7/8—1 1/4	1/2—7/8	7/8—1 1/4	3/4—1 1/8
6	—	—	—	6	1 3/8—1 1/2	1—1 1/8	1 3/8—1 1/2	1 1/4—1 3/8
—	—	—	—	7	1 5/8—2	1 1/4—2	1 5/8—2	1 1/2—2

Handle No. 951

Size of handle	For No. 927-1/4 curve	For No. 929	For Nos. 931,932	For No. 933	For No. 934	For No. 940	For No. 942
	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.
1	1/4	—	—	—	—	1/16—1/4	—
2	5/16—7/16	—	—	3/4—1	—	5/16—1/2	1/8—3/8
3	—	—	—	—	—	—	—
4	1/2—5/8	1/16—1/4	—	—	—	9/16—3/4	1/2—7/8
5	3/4—1	5/16—3/8	—	—	—	7/8—1 1/4	—
6	1 1/8—1 1/4	7/16—1/2	3/4—1 3/8	—	1 1/4—1 3/8	1 3/8—1 1/2	1—1 1/2
7	1 3/8—2	9/16—3/4	1 1/2	—	1 1/2—1 3/4	1 5/8—2	1 3/4—2
8	—	7/8—1	—	—	—	—	—
9	—	1 1/8—1 1/4	—	—	—	—	—

Handle No. 951

Size of handle	For No. 945	For No. 946	For No. 947	For No. 962	For No. 963	For No. 1030	For No. 1031
	Ins.	Ins.	Ins.	mm	mm	Ins.	Ins.
1	—	—	—	—	—	1/16—3/8	1/16—5/16
2	—	1/2	1/2	—	—	7/16—3/4	3/8—1/2
3	—	—	—	—	—	7/8—1 1/8	9/16—7/8
4	1/2—3/4	5/8—1	5/8—3/4	—	—	1 1/4—1 1/2	1—1 1/4
5	7/8—1 1/4	—	1	20—22	20—22	1 5/8—1 3/4	1 3/8—1 1/2
6	1 3/8—1 1/2	—	—	24—25	24—28	1 7/8—2	1 5/8—1 3/4
7	—	—	—	28—32	30—32	—	1 7/8—2

CARPENTERS' TOOLS

HANDLES: Tables

Handle No. 953

Handle No. 955

Handle No. 958

Size of handle	For No. 925	For No. 926	Size of handle	For No. 924	For No. 1026	For No. 1027	Size of handle	For Nos. 922,923	For Nos. 931,932	For No. 934
	Ins.	Ins.		Ins.	Ins.	Ins.		Ins.	Ins.	Ins.
1	$\frac{1}{4} - \frac{3}{8}$	$\frac{1}{4} - \frac{3}{8}$	1	—	$\frac{1}{8} - \frac{1}{2}$	$\frac{1}{8} - \frac{1}{2}$	1	$\frac{1}{8} - \frac{5}{16}$	—	—
2	$\frac{7}{16} - \frac{3}{4}$	$\frac{7}{16} - \frac{3}{4}$	2	—	$\frac{9}{16} - 1$	$\frac{9}{16} - 1$	2	$\frac{3}{8} - \frac{7}{16}$	—	—
3	$\frac{7}{8} - 1\frac{1}{8}$	$\frac{7}{8} - 1\frac{1}{8}$	3	—	$1\frac{1}{8} - 1\frac{1}{2}$	$1\frac{1}{8} - 1\frac{1}{2}$	3	$\frac{1}{2} - \frac{7}{8}$	—	—
4	$1\frac{1}{4} - 1\frac{3}{4}$	$1\frac{1}{4}$	4	—	$1\frac{5}{8} - 2$	$1\frac{5}{8} - 2$	4	$1 - 1\frac{1}{8}$	$\frac{3}{4} - 1\frac{3}{8}$	$1\frac{1}{4} - 1\frac{3}{8}$
5	$1\frac{1}{2} - 2$	$1\frac{3}{8} - 2$	5	$\frac{1}{4} - \frac{1}{2}$	—	—	5	$1\frac{1}{4} - 2$	$1\frac{1}{2}$	$1\frac{1}{2} - 1\frac{3}{4}$
—	—	—	6	$\frac{5}{8} - 1$	—	—	—	—	—	—
—	—	—	7	$1\frac{1}{8} - 2$	—	—	—	—	—	—

Handle No. 958

Handle No. 960

Size of handle	For No. 940	For No. 942	For Nos. 962,972	For Nos. 963,973	For Nos. 922,923
	Ins.	Ins.	mm	mm	Ins.
1	$\frac{1}{16} - \frac{1}{2}$	$\frac{1}{8} - \frac{3}{8}$	—	—	$\frac{1}{8} - \frac{1}{4}$
2	$\frac{9}{16} - \frac{3}{4}$	$\frac{1}{2} - \frac{7}{8}$	—	—	$\frac{5}{16} - \frac{7}{16}$
3	$\frac{7}{8} - 1\frac{1}{4}$	—	20—22	20—22	$\frac{1}{2} - 1\frac{1}{8}$
4	$1\frac{3}{8} - 1\frac{1}{2}$	$1 - 1\frac{1}{2}$	24—25	24—28	$1\frac{1}{4} - 2$
5	$1\frac{5}{8} - 2$	$1\frac{3}{4} - 2$	28—32	30—32	—

CARPENTERS' TOOLS

WOOD CHISELS

Wood Chisel Bundle in Advertising Cardboard Box
(All wood chisels with handles of genuine curled birch wood)



No. 1031/951 bevelled wood chisels in bundles, packed in attractive cardboard boxes and intended for display purposes, will be delivered in sets of 6 and 9 chisels.

Set No. 1 contains 6 wood chisels in sizes: $\frac{1}{8}$ " , $\frac{5}{16}$ " , $\frac{1}{2}$ " , $\frac{3}{4}$ " , 1" and $1\frac{1}{4}$ "

Set No. 2 contains 9 wood chisels in sizes: $\frac{1}{8}$ " , $\frac{1}{4}$ " , $\frac{3}{8}$ " , $\frac{1}{2}$ " , $\frac{5}{8}$ " , $\frac{3}{4}$ " , $\frac{7}{8}$ " , 1" and $1\frac{1}{4}$ "



Cardboard box with bundle.

CARPENTERS' TOOLS

CARVING KNIVES

BERG Carving Knives of well-known, characteristic Swedish style are celebrated for their serviceable form and strength and keen and durable edge due to the good Swedish steel, carefully heat treatment and tempering. The following simple models probably originate in peasant knives used since time immemorial for domestic wood carving. The bevel of the edge reaches to about half the width of the blade, conducing to robust strength for ordinary whittling as well as all kinds of simple wood carving.

No. 3

Polished and varnished curled birch handle. Ornate, silver-plated ferrule. Highly polished blade.

Length of blade: $3\frac{1}{2}$ " (90 mm)

» » knife: $7\frac{1}{2}$ " (190 »)



No. 3

No. 4

Polished and varnished birch handle. Ornate, polished brass ferrule. Polished blade.

Length of blade: $3\frac{1}{2}$ " (90 mm)

» » knife: $7\frac{1}{2}$ " (190 »)



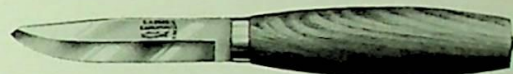
No. 4

No. 4 M

Polished and varnished birch handle. Nickel-plated iron ferrule. Polished blade.

Length of blade: 3" (75 mm)

» » knife: $6\frac{5}{8}$ " (170 »)



No. 4 M

No. 4 L

Polished and varnished birch handle. Nickel-plated iron ferrule. Polished blade.

Length of blade: $2\frac{3}{4}$ " (70 mm)

» » knife: $6\frac{1}{4}$ " (160 »)



No. 4 L

No. 5

Polished and varnished curled birch handle. Nickel-plated brass ferrule. Extra highly polished blade.

Length of blade: 4" (100 mm)

» » knife: $8\frac{3}{4}$ " (220 »)



No. 5

No. 15

Polished and varnished birch handle. Brass ferrule. Polished blade.

Length of blade: $4\frac{3}{4}$ " (120 mm)

» » knife: $9\frac{1}{4}$ " (235 »)



No. 15

No. 27

Polished and varnished birch handle. Brass ferrule. Polished blade.

Length of blade: $4\frac{1}{2}$ " (115 mm)

» » knife: $9\frac{1}{8}$ " (230 »)



No. 27

CARPENTERS' TOOLS

WOOD CARVER'S AND SLOYD KNIVES

Wood Carver's Knives

Wood carver's knives are made in a very large selection by BERG, and, like the simple carving knives, are characteristic by a keen and durable edge due to the good steel and careful heat-treatment. The patterns offered have been designed in collaboration with prominent instructors of wood carving in different countries, and will fill the most exacting demands. The whole side of the blade is beveled which provides keen cutting power and long life of the knife. The knives of straight form will also be found very handy for ordinary domestic use in the household.



No. 1

No. 1

"Nääs" pattern. Black varnished birch handle. Oxidized iron ferrule. Highly polished blade.

Length of blade: $3\frac{1}{2}$ " (90 mm)

» » knife: 8" (200 »)



No. 2

No. 2

"Nääs" pattern. Black varnished birch handle. Oxidized iron ferrule. Highly polished blade.

Length of blade: $3\frac{1}{2}$ " (90 mm)

» » knife: 8" (200 »)



No. 2B

No. 2B

"Stockholm School of Sloyd" pattern. Black varnished birch handle. Oxidized iron ferrule. Highly polished blade.

Length of blade: $3\frac{1}{2}$ " (90 mm)

» » knife: 8" (200 »)

Sloyd Knives

Wood carving knives of the curved form shown here are used for various work of the "sloyd" order, for teaching children and adults handicraft. For practical purposes may be mentioned the use in domestic crafts as the making of clogs, wooden spoons and ladles, and various household articles of a similar kind.



No. 12

No. 12

Polished and varnished birch handle. Oxidized iron ferrule. Polished blade.

Length of blade: approx. $2\frac{3}{8}$ " (60 mm)

» » knife: $6\frac{1}{4}$ " (160 »)



No. 513

No. 513

Round birch handle with blade riveted to one side. Polished blade.

Length of blade: approx. $1\frac{5}{8}$ " (40 mm)

» » knife: 6" (150 »)

CARPENTERS' TOOLS

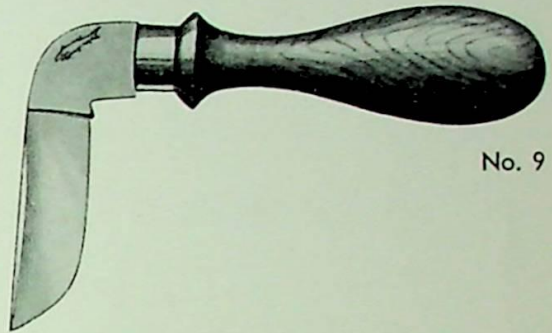
WOOD CARVER'S KNIVES

Here are illustrated and described wood carver's knives of a more complicated form, all made from the best selected steel and carefully heat-treated. BERG offers a very large selection of these knives.

No. 9

Polished and varnished birch handle. Oxidized iron ferrule. Polished blade.

Length of blade: $1\frac{3}{8}$ " (35 mm)
» » knife: approx. $4\frac{3}{8}$ " (110 »)



No. 9

No. 10

Black lacquered birch handle. Oxidized iron ferrule. Polished blade.

Length of blade: $1\frac{3}{4}$ " (45 mm)
» » knife: approx. $5\frac{5}{8}$ " (145 »)

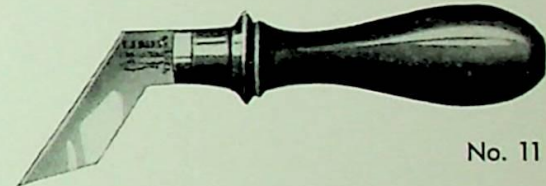


No. 10

No. 11

Black lacquered birch handle. Oxidized iron ferrule. Polished blade.

Length of blade: approx. $1\frac{5}{8}$ " (40 mm)
» » knife: » $5\frac{1}{2}$ " (140 »)



No. 11

No. 13

Black lacquered birch handle, of rectangular form. Edges bevelled. Polished blade.

Length of blade: approx. 2" (50 mm)
» » knife: » $6\frac{1}{4}$ " (160 »)



No. 13

No. 14

Polished and varnished birch handle. Oxidized iron ferrule. Polished blade.

Length of blade: approx. $1\frac{5}{8}$ " (40 mm)
» » knife: » $5\frac{1}{8}$ " (130 »)



No. 14

No. 402

Polished birch handle. Oxidized iron ferrule. Polished blade. Made with either short or long point.

Description: No. 402 long point
» 402 short » (Illustrated)

Length of blade: approx. $2\frac{1}{2}$ " (65 mm)
» » knife: » 7" (175 »)

This knife is used a good deal for cutting out stencils, being also called Stencil Knife.



No. 402

CARPENTERS' TOOLS

DRAWING KNIVES AND PARQUETRY SCRAPERS

Drawing Knives

The drawing knife is a very handy tool, with a large output of work when it is a question of rough fashioning a block of wood for a certain purpose. It is used by both housebuilders and carpenters, as well as by lumbermen for trimming balks, rafters and the like.



No. 760

No. 760

This pattern of drawing knife has a slightly curved edge and is mainly used by carpenters for preliminary fashioning of wood blocks, and for the trimming of rough lumber.

Size: 8", 9", 10", 11", 12" and 14"

Width: $1\frac{3}{8}$ " (35 mm)

Also made in a width of approx. 1" (25 mm)



No. 761

No. 761

This is a more powerful knife than No. 760 and finds its chief utility for barking and trimming of trunks and branches, for finishing flag poles, spars, masts, fencing poles, sleepers and the like.

Size: 10", 11" and 12"

Width: $1\frac{3}{8}$ " (35 mm)



No. 1050

Parquetry Scrapers

Large Parquetry Scraper

No. 1050

Consists of a single blade with straight or curved edge according to desire, with the wooden handle riveted to the blade. On account of the great width it is suitable for scraping large surfaces of laid parquetry floors.

Length of edge: approx. 5" (125 mm)

If specially ordered these scrapers may be obtained with straight edge instead of the standard curved edge at a slightly higher price.



No. 1051

Small Parquetry Scraper

No. 1051

This scraper has two detachable blades, secured in a wedge-shaped wooden handle. In this way 4 working edges are available. The scraper is used for the cleaning of parquet floors, for scraping hulls and decks of yachts and any other wood surfaces that should have a smooth finish for subsequent varnishing, painting or polishing.

Size: approx. $1\frac{5}{8}$ " and $2\frac{1}{2}$ " (40 and 65 mm)

Separate blades for No. 1051 may be obtained.

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In case where millimetre is indicated, please refer to millimetre.



Double joint



BERG Special
single joint



Single joint



Single joint

Notes:

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Notes:

E. A. Berg Mfg. Co., Ltd., Eskilstuna, Sweden

PLIERS

That useful and efficient tool of many uses originally called tongs or pair of tongs, has in the course of ages developed into a number of types for the most diversified purposes, being designated, according to the use for which they are intended; tongs, pliers, nippers, shears, punches &c. Even these more or less characteristic types are varied in innumerable ways in order to suit the specific purposes of various trades.

Several qualities of basic importance, however, are possessed in common by all these tools and have served to establish the high reputation of BERG Tools all over the world.

Material

Only the best Swedish Charcoal Steel is used in the manufacture of BERG Pliers, Nippers and Shears &c. The material is subjected to careful examinations at our factory both before and in the course of the manufacture of the tools.

Treatment of the material

The principal factor for obtaining the greatest benefit from the superior properties of Swedish Charcoal Steel is proper heat-treatment.

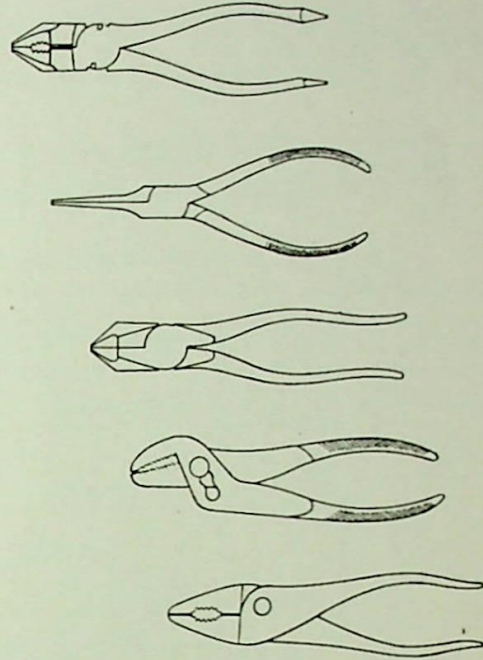
BERG Pliers are annealed, hardened and tempered in automatically temperature-controlled electric furnaces fitted with the most up-to-date appliances. These processes being simultaneously controlled metallographically in our Steel Laboratory, we are enabled to guarantee the highest obtainable quality.

Design

In collaboration with experts in different branches the designs of the various kinds of pliers and nippers &c. have been worked out to comply in as far as possible with the following requirements, viz:—

Despite the favourable results attained we never rest content, but continually strive for improvements based on tests and the experience our customers have gained in actual use.

If you have any improvements to propose let us know about it. Also let us know if you find the tool satisfactory as it is.



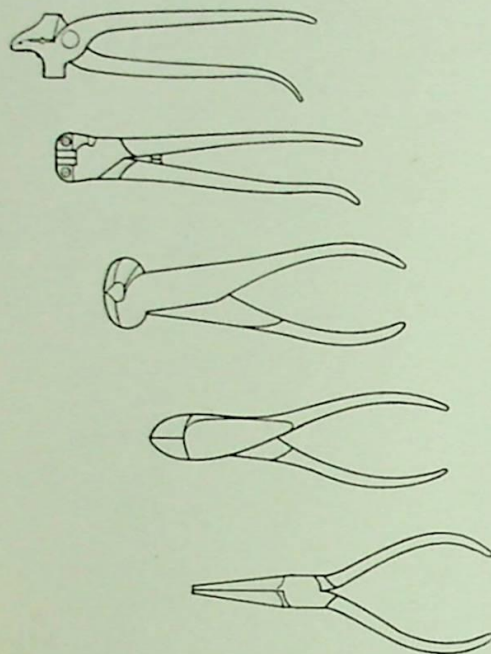
Different types of pliers

Greatest practical utility.
Lightness and handy operation.
Strength and greatest durability.
Attractive appearance.

E. A. Berg Mfg. Co., Ltd., Eskilstuna, Sweden

U₁

PLIERS



Different types of pliers

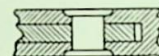
Greatest practical utility.
Lightness and handy operation.
Strength and greatest durability.
Attractive appearance.

The following constructional details of BERG Tools may be specially referred to:

The Joint

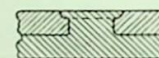
BERG distinguishes between three different designs of this element, viz:—

Double Joint



This type is the most durable but also most expensive one to make. Owing to the fact that one of the shanks is completely guided in the other one, the pliers function very rigidly besides that the useful life of the pliers is lengthened.

Special Single Joint



BERG special design. The pivot pin is forged out of and thus forms part of one of the shanks, being besides riveted with a large and strong head. This joint is therefore in the matter of strength and durability very nearly equal to a double joint.

Through-Pin Joint



This is the least expensive design but yet, on account of liberal dimensioning of the pin and rivet heads, constitutes a strong and durable joint.

BERG Pliers have the joint placed as close to the jaws as possible, resulting in maximum power with the least possible application of strength.

Shanks

The shanks of all types of BERG Pliers and Nippers are powerfully dimensioned and *hardened all over*, wherefore they resume their original form even after exposure to the heaviest strains.

The shanks are of such form as to make them sit well in the hand and, when required, are knurled to prevent slipping.

All BERG Nippers and Pliers are subjected to tensile tests before leaving the factory, which afford ample guarantee of strength. For all cutting pliers a wire clipping test is supplemented according with table shown on next page.

TESTING

It should be noted that the dimensions of wire given below are those for which the pliers are constructed. Attention should be drawn to the fact, however, that a person of average strength can not always exert the compressive power necessary for cutting the higher dimensions.

TABLE *Berg* **Pliers**
of wire diameters that can be cut with

All dimensions of wire are given in Old Birmingham or Stubbs Iron Wire Gauge. (B. W. G.)
For table showing the relation between B. W. G. and millimetres, see the back of the general indexleaf.

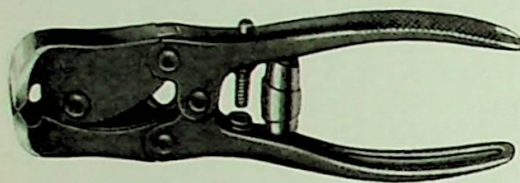
No.	Will cut	3"	3½"	4"	4½"	5"	5½"	6"	6½"	7"	7½"	8"	8½"	9"	10"	11"	12"	14"
E40	Iron wire.....	—	—	—	—	17	—	14	—	14	—	13	—	13	11	11	11	—
514	Hard steel wire	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	—	—
515	Piano wire.....	—	—	—	—	—	—	11	—	—	—	11	—	—	—	—	—	—
515A	» »	—	—	—	—	—	—	11	—	—	—	11	—	—	—	—	—	—
516	Hard steel wire	—	—	—	—	—	—	—	—	—	—	—	8	—	—	—	—	—
516	Piano wire.....	—	—	—	—	—	—	—	—	—	—	11	—	—	—	—	—	—
522	Hard steel wire	—	17	17	17	15	15	14	—	14	—	13	—	—	—	—	—	—
523	» »	—	17	17	17	15	15	14	—	14	—	13	—	—	—	—	—	—
524	Iron wire.....	—	—	—	—	—	—	—	—	11	—	11	—	—	—	—	—	—
526	Hard steel wire	19	19	17	15	15	14	14	—	13	—	12	—	—	—	—	—	—
527	Piano wire.....	—	—	—	—	14	—	13	—	11	—	11	—	—	—	—	—	—
529	Iron wire.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	14	—
539	» »	—	—	—	—	—	—	—	—	—	—	—	11	—	—	—	—	—
540	» »	—	—	—	—	17	—	14	—	14	—	13	—	—	11	—	—	—
541	» »	—	—	17	—	17	—	14	—	14	—	13	—	13	11	11	11	10
542	» »	—	—	—	—	17	—	14	—	14	—	13	—	13	11	11	11	—
543	» »	—	—	—	—	—	—	—	—	—	—	—	—	—	13	11	—	—
543G	» »	—	—	—	—	—	—	—	—	—	—	—	—	—	11	11	—	—
545	» »	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13	—
590	Hard steel wire	—	—	—	—	18	—	17	—	17	—	—	—	—	—	—	—	—
595	» » »	—	—	—	—	17	—	14	—	14	—	13	—	—	—	—	—	—
596	» » »	—	—	—	—	17	—	14	—	14	—	13	—	—	—	—	—	—
597	» » »	—	—	—	—	17	—	15	—	14	—	13	—	13	—	—	11	—
598	» » »	—	—	—	—	14	—	13	—	12	—	11	—	—	—	—	—	—
613	Iron wire.....	—	—	—	—	—	—	—	—	11	—	—	—	—	—	—	—	—
614	» »	—	—	—	—	—	—	—	—	11	—	—	—	—	—	—	—	—
616	Hard steel wire	—	—	—	—	—	15	—	—	—	14	—	—	—	—	—	—	—
617	Iron wire.....	—	—	—	—	—	—	—	—	11	—	—	—	—	—	—	—	—
696	Hard steel wire	—	—	—	—	14	—	13	—	12	—	11	—	11	—	—	—	—
1508	» » »	—	—	—	—	—	—	—	—	11	—	—	—	—	—	—	—	—
1518	Piano wire.....	—	—	—	—	—	—	—	—	—	—	—	—	11	10	—	—	—
1519	» »	—	—	—	—	—	—	—	—	—	—	—	—	11	—	—	—	—
1525	Hard steel wire	—	—	—	15	15	14	14	—	13	—	12	—	—	—	—	—	—
1528	Piano wire.....	—	—	—	17	—	14	—	13	—	11	—	—	—	—	—	—	—
1529	Hard steel wire	—	—	—	—	—	—	—	17	—	—	—	—	—	—	—	—	—
1529	Iron wire.....	—	—	—	—	—	—	—	13	—	—	—	—	—	—	—	—	—
1590	Hard steel wire	—	—	19	—	18	—	17	—	17	—	—	—	—	—	—	—	—
1590B	» » »	—	—	—	—	—	—	—	—	—	—	14	—	—	—	—	—	—
2528	» » »	—	—	—	—	—	—	—	13	—	12	—	—	—	—	—	—	—

Continuous exhaustion tests in special machines, hardness and practical tests of different kinds form the further basis of the guarantees that are given with BERG Pliers and Nippers.

PLIERS

MULTI-POWER ECCENTRIC NIPPERS

These cutting nippers are characterized by their exceptionally great cutting power. This is effected by a duplex leverage system and the utilization of the action of this system. The handpower is in this way multiplied many times, which is especially the case towards the end of the cutting movement when the resistance is the greatest. The design makes great demands on the material and workmanship, however, as the strains on both the cutting edges and the joints are very high. The high quality of BERG Manufactures ensures that the durability of the tool is more than equal to the cutting power.



No. 515

Top-cutting Nippers

No. 515 Knurled shanks

Multi-power nippers, hardened to cut piano wire. The shanks are knurled for providing a good grip. Between the shanks is an adjustable stop screw for preventing the cutting edges coming together and damaging each other.

Used in different trades and industries but especially for work involving the frequent cutting of hard materials as in piano factories, bedstead spring factories, cycle works &c.

No. 515 A are specially adapted for the cutting of spoke wire in cycle factories and will serve as bolt clippers on light work, for shoemakers to cut off nails in the heels of ladies shoes &c. (See page U 28)

Length: 6" 8"
 Width of jaws: 7/8" (22) 1 1/16" (27 mm)
 Cut piano wire up to: B. W. G. No. 11 (3) 11 (3 »)
 Finish: Black



No. 516

Side-cutting Nippers

No. 516 Knurled shanks

These cutting nippers with the edges lengthwise in the centre are hardened for cutting hard steel wire. The mechanism is the same as the preceding, with knurled shanks and stop screw in between. They are used for cutting bolts, fencing wire and may be regarded as a small variant of bolt clippers, which are designed on the same principle.

Length: 8 1/2"
 Cut hard steel wire up to: B. W. G. No. 8 (4 mm)
 » piano » » » » 11 (3 »)
 Finish: Black

CUTTING NIPPERS WITH PLAIN SHANKS AND ACTION

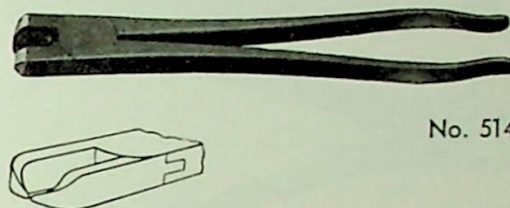
These nippers possess great cutting power on account of the length of the shanks in combination with BERG Special single joint. The extra power is obtained by the pivot joint being situated close to the cutting edges and the leverage provided by the long shanks.

Side-cutting Nippers

No. 514 Double joint

Specially made for the electrical industry for cutting copper wire and sections. Cut very uniformly, smoothly and closely due to thin and pointed edges. These nippers cut hard steel wire and as the cutting position is parallel with the axis, they will be found useful in cramped positions or when a bolt has to be cut close to the adjacent material.

Length: 11 1/2"
Cut hard steel wire up to: B. W. G. No. 11 (3 mm)
Finish: Black



No. 514

Side-cutting Nippers

No. 1518 Special single joint Knurled shanks

Cutting nippers with interchangeable cutting edges, hardened to cut piano wire. The handle part of the shanks is knurled and the shape is very comfortable for the hand. The cutting edges, being made separately, can be made of the most suitable material and subjected to such heat-treatment as will increase the cutting power beyond what is possible in an ordinary nipper. Another advantage is that the cutting edges can be replaced without delay if broken or dulled. Fixed stop lugs between the shanks prevent the edges from coming in contact.

Suitable as fence-wire clippers and wherever hard wire has to be cut.

Length: 9", 10"
Cut piano wire up to: B. W. G. No. 11 (3) 10 (3.5 mm)
Finish: Black, polished or nickel-plated.
Spare cutting edges and screws may be obtained.



No. 1518

Top-cutting Nippers

No. 1519 Special single joint Knurled shanks

Construction similar to the preceding but the interchangeable cutting edges are placed at right angles. Used by cycle repairers, for fencing work, and for light work involving the cutting of piano wire.

Length: 9"
Width of jaws: 1" (25 mm)
Cut piano wire up to: B. W. G. No. 11 (3 »)
Finish: Black
Spare cutting edges and screws may be obtained.



No. 1519

TOP-CUTTING NIPPERS

This is a traditional pattern of top-cutting nippers for cutting wire and the like. In order, however, to increase the utility of the tool the cutting edges are considerably wider than the distance across the joint. This allocation of the stress makes great demands on the materials, workmanship and hardening all the more so as the shape of the nippers renders them liable to be used for bending and prising. This problem has been happily solved in BERG Nippers of this type.



No. 522 Double joint

These nippers are designed with the special object of making a clean cut in not too hard materials, for which reason the edges are of rather thin and pointed section. Owing to the universal utility this tool is included in the tool kit of shoemakers, tinsmiths, electric fitters, engineers, instrument makers, cycle repairers, motorcar repairers &c.

Length: 3" 3 1/2" 4" 4 1/2" 5" 5 1/2" 6" 7" 8"
Cut hard steel wire
up to: B. W. G. No. — 17 17 17 15 15 14 14 13
mm (— 1.5 1.5 1.5 1.75 1.75 2 2.25 2.5)
Finish: Black, polished or nickel-plated



No. 523 Special single joint

In all respects similar to No. 522 with the exception of having BERG Special single joint instead of double joint. The advantage being that the nippers cut with somewhat greater ease. The same range of utility as the preceding.

Length:	3" 3 1/2" 4" 4 1/2" 5" 5 1/2" 6" 7" 8"
Cut hard steel wire up to: B. W. G. No.	— 17 17 17 15 15 14 14 13
	mm (— 1.5 1.5 1.5 1.75 1.75 2 2.25 2.5)
Finish:	Black, polished or nickel-plated



No. 527 Special single joint Knurled shanks

Very powerful cutting nippers with a cutting power that approaches that of many multi-power nippers. In general form they are similar to No. 523 but the cutting edges are still closer to the joint, which increases the cutting power considerably. The nippers cut piano wire but are supplied for softer material to special order. The smallest and least expensive of BERG Nippers for piano wire.

Length:	5"	6"	7"	8"
Cut piano wire up to:				
B. W. G. No.	14	13	11	11
mm (2	2.5	3	3)	
Finish:	Black, polished or nickel-plated			

CUTTING NIPPERS OF PINCER TYPE: *Shoemakers', Plasterers' Nippers, Tinmens' and Tile Pincers*

Shoemakers' Nippers

No. 524

The cutting power of these simple nippers is quite considerable on account of the short distance between the cutting edges and the centre of the joint. Hardened for cutting ordinary iron wire, nails, shoe tacks &c. Are chiefly used by shoemakers but will suit craftsmen in many trades.

Length: 7" 8"
Cut iron wire up to: B. W. G. No. 11 (3 mm) 11 (3 mm)
Finish: Black, polished or nickel-plated



No. 524

Plasterers' Nippers

No. 539

The thin cutting edges and long shanks give these nippers considerable cutting power. Used frequently by plasterers for cutting the wire netting on which the plaster is to be laid, but are serviceable for a great many other purposes.

Length: 9"
Cut iron wire up to: B. W. G. No. 11 (3 mm)
Finish: Black



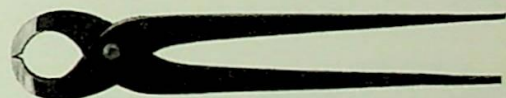
No. 539

Tinmen's Pincers

No. 545

Resemble ordinary pincers of large size, but the distance between the edges and the pivot is very large, providing a longer reach over the edge or seam of the sheets. The close spacing of the shanks enables the pincers to be held conveniently with one hand while hammering or doing other work with the other hand.

Length: 12"
Cut iron wire up to: B. W. G. No. 13 (2.5 mm)



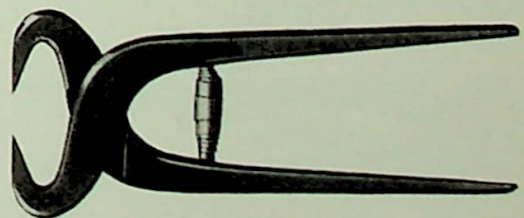
No. 545

Tile Pincers

No. 546

Look like large ordinary pincers but have exceptionally thin cutting edges on the jaws which facilitates cutting tiles of earthen ware or cement &c. A handy tool for cutting tiles and brick to size and shape when tiling walls or floors.

Length: 8"
Gap: 1" (25 mm)



No. 546

For Pincers — see next page.

SHOEMAKERS' TOOLS
X
VARIETIES
TOOL

PLIERS

PINCERS

The function of pincers is to pull out and break loose nails, tacks, cleats &c. and to cut off not too hard metal objects. A general tool for gripping, holding and bending.



No. 540

No. 540

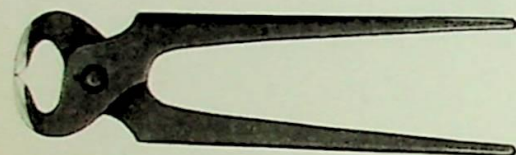
Old simple pattern of pincers, with round shanks and nail-puller on one shank. The rounded outside form of the jaws facilitates the gripping of nail heads. The curved form of the jaws makes it easy to grip over the edge of the sheet &c.

Length: 5" 6" 7" 8" 10"

Cut iron wire up to:

B. W. G. No.	17	14	14	13	11
	mm (1.5	2	2	2.5	3)

Finish: Black, polished or nickel-plated



No. 541

No. 541

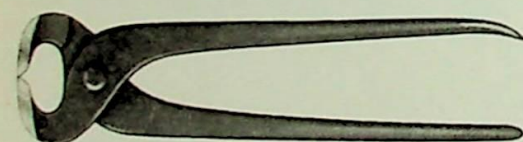
A latter standard pattern which is more useful for cutting than the preceding. The larger area of the pivot joint makes it more rigid. The shanks are straight and of rectangular section. Typical carpenters' pincers, they are very useful also in many other trades.

Length: 4" 5" 6" 7" 8" 9" 10" 11" 12" 14"

Cut iron wire up to:

B. W. G. No.	17	17	14	14	13	13	11	11	11	10
	mm (1.5	1.5	2	2	2.5	2.5	3	3	3	3.5)

Finish: Black, polished or nickel-plated



No. E 40

No. E 40

An intermediate form of Nos. 540 and 541. The good grip provided by this type of shanks, the remarkable cutting power, nail-puller on one shank and other features have made these pincers very popular both with craftsmen in various trades and as a handy tool for the household.

Length: 5" 6" 7" 8" 9" 10" 11" 12"

Cut iron wire up to:

B. W. G. No.	17	14	14	13	13	11	11	11
	mm (1.5	2	2	2.5	2.5	3	3	3)

Finish: Black



No. 542

No. 542

Similar to No. 541 but the shanks are of round section and quite thick, providing a good and comfortable grip. A South American favourite.

Sizes, dimensions and finish: Same as for No. E 40

SIDE-CUTTING NIPPERS

These cutting nippers are very convenient for getting into inaccessible and cramped places, and for cutting off wire, nails, cotter pins and the like very close to the surrounding material. The cutting edges are slightly diagonal in relation to the lengthwise axis of the nippers, so as to have the points flush with the outside. Because of the handy shape, these side-cutting nippers can be used to replace a knife or scissors for cutting twine, cord and tape in shops, fibre string in hothouses and flower shops and are useful for pruning, packing and many other jobs. These nippers are especially useful to electricians for stripping off insulation and all kinds of work in connection with wiring and assembling. BERG Side-cutting Nippers are made of the best material, with firm and well-aligned jaws and close-fitting cutting edges.

No. 526 Double joint

Traditional pattern fitted with double joint. Favoured by electricians, machinists, repairers, watchmakers and other tradesmen.

Length:..... 3" 3½" 4" 4½" 5" 5½" 6" 7" 8"

Cut hard steel wire

up to: B. W. G. No.... 19 19 17 15 15 14 14 13 12
mm (1 1 1.5 1.75 1.75 2 2.25 2.5 2.75)

Finish: Black, polished or nickel-plated



No. 526

No. 526 With insulated shanks

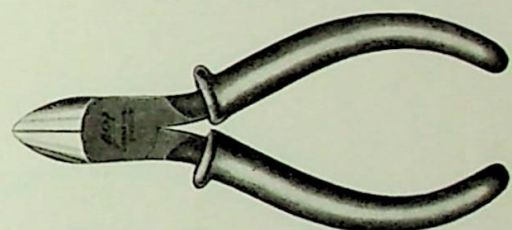
The shanks are insulated with ebonit sockets to enable the nippers to be used to handle live wires for ordinary currents. The sockets can not be used for uninsulated nippers as the shanks are especially ground for this purpose.

Length:..... 4½" 5"

Cut hard steel wire

up to: B. W. G. No.... 15 15
mm (1.75 1.75)

For ordering: No. 526-insulated



No. 526

No. 1525 Special single joint

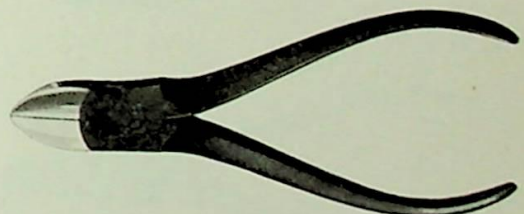
Similar to No. 526 but made with BERG Special single joint, which lessens the power needed for cutting. Used for the same purposes as No. 526, uninsulated.

Length:..... 4½" 5" 5½" 6" 7" 8"

Cut hard steel wire

up to: B. W. G. No.... 15 15 14 14 13 12
mm (1.75 1.75 2 2.25 2.5 2.75)

Finish: Black, polished or nickel-plated



No. 1525

No. 1525 With insulated shanks

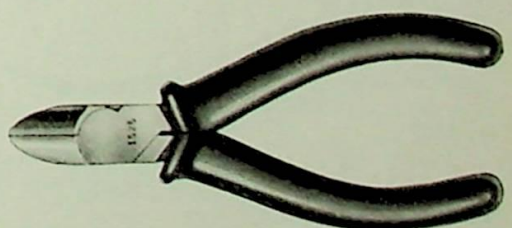
The shanks are insulated with ebonit sockets to enable the nippers to be used to handle live wires for ordinary currents. The sockets can not be used for uninsulated nippers as the shanks are especially ground for this purpose.

Length:..... 4½" 5"

Cut hard steel wire

up to: B. W. G. No.... 15 15
mm (1.75 1.75)

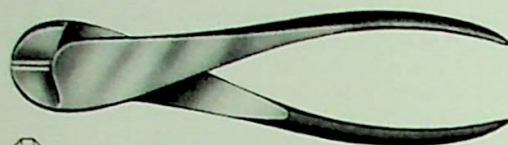
For ordering: No. 1525-insulated



No. 1525

PLIERS

SIDE-CUTTING NIPPERS

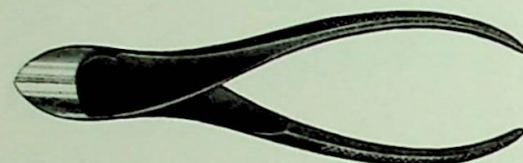


No. 1508

No. 1508 Special single joint

Cutting edges in the centre, in line with the nippers. Powerful and efficient for cutting both hard and soft materials. Used for work which does not require cutting close to the surrounding material.

Length: 7"
Cut hard steel wire
up to: B. W. G. No. 11 (3 mm)
Finish: Black



No. 1528

No. 1528 Special single joint Knurled shanks

Specially designed for cutting piano wire and used in factories and workshops where very hard wire has to be used; in piano factories, coiled spring works, bed spring factories &c.

Length:	4 1/2"	5 1/2"	6 1/2"	7 1/2"
Cut piano wire up to:				
B. W. G. No.	17	14	13	11
mm	(1.5)	2	2.5	3)

Finish: Black, polished or nickel-plated



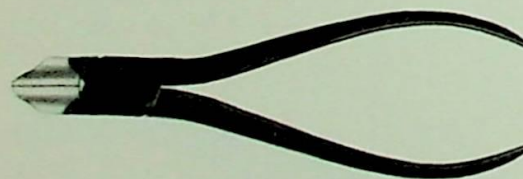
No. 2528

No. 2528 Special single joint Knurled shanks

Diagonal cutting nippers which provide ample space for the hand owing to the set of the cutting edges (see close-up in the illustration), especially when cutting close to large flat surfaces. The line of the cutting edges is slightly curved which further enables close cutting.

Length:	6 1/2"	7 1/2"
Cut hard steel wire		
up to: B. W. G. No.	13	12
mm	(2.5)	2.75)

Finish: Black, polished or nickel-plated



No. 1529

No. 1529 Special single joint

Another model of diagonal cutting nippers which have straight cutting edges. The jaws are extended and have thin, hard edges. Because of this they cut ordinary wire very clean but are *not intended for hard steel wire*. The advantages of the set of the cutting edges are the same as for No. 2528. Are much used by shoemakers for cutting off tacks and nails inside shoes, and by others for various purposes.

Length:	6 1/2"
Cut iron wire up to: B. W. G. No.	13 (2.5 mm)
» hard steel wire » » »	17 (1.5 »)

Finish: Black, polished or nickel-plated

FLAT NOSE PLIERS

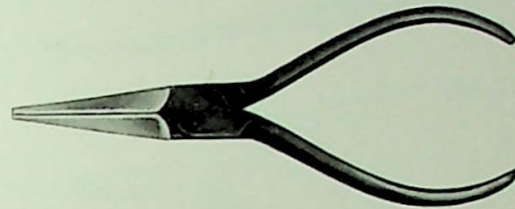
Flat nose pliers are used to grip and hold an object. In order to provide good gripping power BERG Flat Nose Pliers have the teeth on the jaw faces cut by hand. Hand cutting is superior to machine cutting for this purpose owing to the greater sharpness of the teeth or ridges. The pliers are in some cases made of case-hardened steel, giving great surface hardness and resistance to wear, in combination with toughness.

No. 530 Double joint Long reach

The extra long jaws of these pliers, toothed to about one third of the length, provide a good reach which is of advantage for many jobs, such as for repairing typewriters and other office machines, grammophones, telephone and wireless apparatus &c. For smaller flat-nosed pliers, see Watchmakers' Pliers 1520 (page U 18).

Length:	5"	5½"	6"	7"	8"
» of jaws: ...	1¾"	1¾"	2"	2½"	2¾"
mm	(45)	45	50	55	60)

Finish: Black, polished or nickel-plated



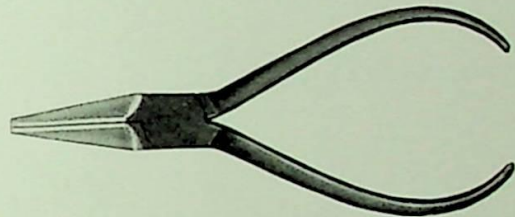
No. 530

No. 531 Double joint Short jaws

These pliers have shorter jaws than the preceding, toothed to about half the length, but are in other respects similar to No. 530. They are generally useful in all trades.

Length:	3"	3½"	4"	4½"	5"
» of jaws: ...	1⅜"	7/8"	1"	1⅜"	1⅝"
mm	(21)	23	25	27	30)
»	5½"	6"	7"	8"	
» of jaws: ...	1¼"	1⅜"	1⅝"	1¾"	
mm	(33)	35	40	45)	

Finish: Black, polished or nickel-plated



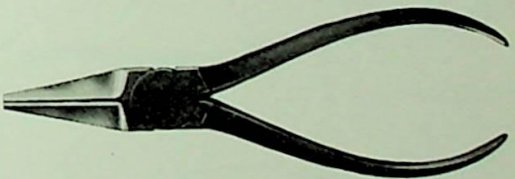
No. 531

No. 532 Special single joint

In all respects similar to No. 531 but made with BERG Special single joint. Good first class pliers, case-hardened.

Length:	4"	4½"	5"	6"	7"	8"
» of jaws: ...	1"	1⅜"	1⅝"	1⅞"	1⅞"	1¾"
mm	(25)	27	30	35	43	45)

Finish: Black, polished or nickel-plated



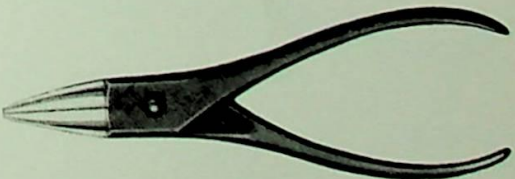
No. 532

No. 537 Single joint

Hardened steel pliers with through pivotbolt and simple single joint. The jaws are partly toothed. They are included in BERG Warranted Line of Tools, but are more cheaply made than the preceding.

Length:	5"	6"	7"
» of jaws: ...	1"	1⅜"	1⅞"
mm	(25)	30	35)

Finish: Black



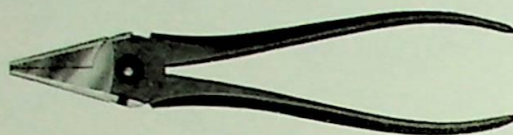
No. 537

SHOEMAKERS' TOOLS
 X
 VARIOUS TOOLS

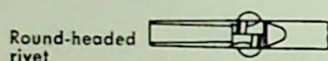
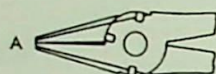
PLIERS

FLAT NOSE PLIERS: Fencing Pliers

Pliers of the flat nose patterns which have wire-cutting slots round the joint. Handy for work which involves the cutting of not too hard wire.



No. 534



Round-headed rivet

No. 534 Single joint

Made from tough-hardened steel with two or three wire-cutting slots, the latter being mostly in demand, although some users do not want a cutting slot between the jaws. The jaws are toothed to about half the length. Largely used for the wiring of bales and packing cases with iron wire; the larger sizes also for fencing.

Length:	5"	6"	7"	8"
» of jaws	1"	1 1/16"	1 1/8"	1 1/4"
	mm (25)	27	30	32)
Slots for wire B. W. G. No.	13	12	10	9
Length:	8"	9"	10"	
» of jaws:	Extra strong 1 5/8"	1 5/8"	1 5/8"	
	mm (40)	40	40)	
Slots for wire B. W. G. No.	8	8	8	
Finish:	Black, polished or nickel-plated. 8" - Extra strong - is furnished only in black.			

No. 534 can be obtained in illustrated three different styles and are then ordered: e. g. No. 534 A.

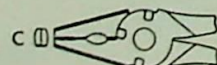
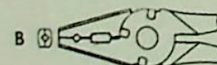
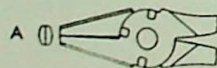
A with 3 wire-cutting slots; the most common.

B » 2 » » »

Round-headed rivet. The one most in use and supplied when not otherwise specified. Can be obtained with flat-headed rivet to special order.



No. 1534



No. 1534 Special single joint Knurled shanks

Developed from No. 534, having a number of extra slots and devices for gripping wire and pipes, as well as for cutting. The jaws are toothed to about half the length.

Length:	10"	11"	12"
» of jaws:	1 1/2"	1 5/8"	1 3/4"
	mm (38)	42	45)
Slots for wire B. W. G. No.	8	8	8
Finish:	Black only		

All three styles of these pliers are shown illustrated here and are ordered: e. g. No. 1534 A.

A Have no more facilities than No. 534 and are in consequence less in demand than the others.

B The most highly developed style and most in demand. Length-wise channel for wire, crosswise slot for wire and toothed jaws for pipes.

C More adapted as pipe pliers, having cross toothing of the jaws and rounded slots for gripping pipes. Used for the same purposes as the larger sizes of No. 534, comprising packing and fencing work.

FLAT AND ROUND NOSE PLIERS

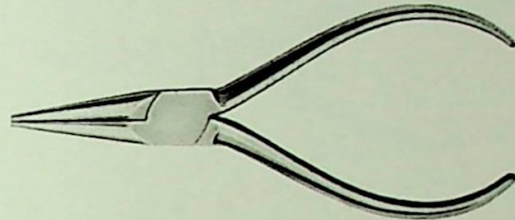
These flat and round nose pliers are of a more slender and taper type, the jaws being slightly rounded for giving a freer sight and better accessibility. The rounded outer contour makes them better adapted for coiling and bending than pliers with jaws of square section. The gripping power is exceptionally good on account of the teeth being hand cut, and the sharpness of the teeth is retained after long use due to the good material.

No. 533 Double joint

Standard model of flat and round nose pliers with rounded jaws, toothed to about one third, tapering into a long point. Used in all kinds of trades but especially by instrument makers, repairers of typewriters and other office machines; the larger sizes by mechanics, motor-car repairers &c.

Length:	3"	3½"	4"	4½"	5"	6"	7"
» of jaws: ...	1¼"	1⅜"	1½"	1⅝"	2"	2⅛"	2⅜"
mm (33	35	40	43	50	55	60)	

Finish:..... Black, polished or nickel-plated



No. 533

No. 2533 Special single joint Knurled shanks

Used for the same purposes as the preceding which they resemble. The shanks are knurled and the pliers fitted with BERG Special single joint.

Length:	4"	5"	6"	7"	8"
» of jaws: ...	1¾"	2"	2⅛"	2⅜"	3"
mm (45	50	55	60	75)	

Finish:..... Black, polished or nickel-plated



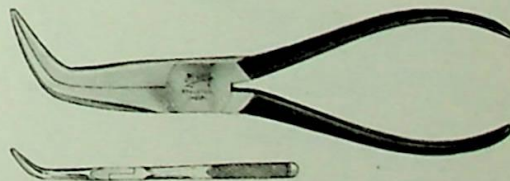
No. 2533

No. 2533 B Special single joint Knurled shanks

Made like No. 2533 of the largest size. The jaws are curved upward to the left, enabling the pliers to be used for extracting pins and bolts in inaccessible places of complicated machines. The jaws are partly toothed.

Length:	8"
» of jaws: ...	2⅛"
mm (55)	

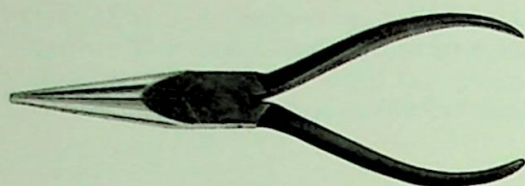
Finish:..... Black only



No. 2533 B

PLIERS

FLAT NOSE PLIERS WITH SEMI-ROUND JAWS AND WIRE-CUTTERS

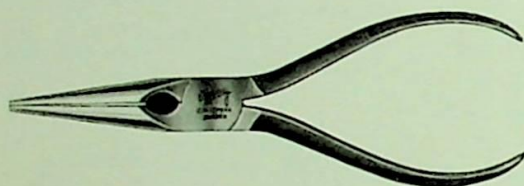


No. 590

No. 590 Double joint

Exactly similar to No. 533 of the corresponding sizes but having a wire cutter between the jaws, next to the joint. A very practical tool which will cut even hard steel wire. The long taper, half-rounded jaws provide free sight and possess good gripping power. Partly toothed. For telephone and telegraph workers, instrument makers &c.

Length:	5"	6"	7"
» of jaws:	2"	2 1/8"	2 3/8"
mm	(50)	55	60)
Cut hard steel wire			
up to: B. W. G. No....	18	17	17
mm	(1.25	1.5	1.5)
Finish:	Black, polished or nickel-plated		

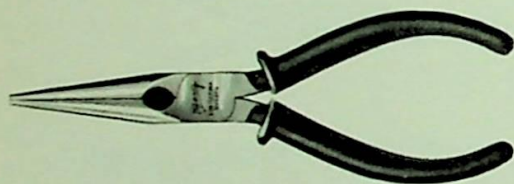


No. 1590

No. 1590 Special single joint Knurled shanks

Like the foregoing except for the joint and the knurled shanks.

Length:	4"	5"	6"	7"
» of jaws:	1 3/4"	2"	2 1/8"	2 3/8"
mm	(45	50	55	60)
Cut hard steel wire				
up to: B. W. G. No....	19	18	17	17
mm	(1	1.25	1.5	1.5)
Finish:	Black, polished or nickel-plated			



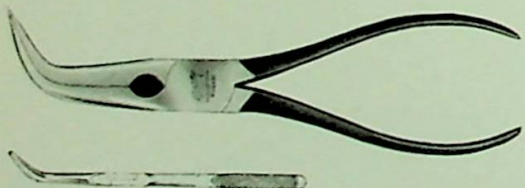
No. 1590

No. 1590 With insulated shanks

Provided with insulated shanks of ebonite the pliers may be used for handling live wires carrying ordinary voltages. For electric fitters and wiremen.

Length:	6"
» of jaws:	2 1/8" (55 mm)
Cut hard steel wire	
up to: B. W. G. No....	17 (1.5 »)

For ordering: No. 1590-insulated



No. 1590 B

No. 1590 B Knurled shanks

The points of the jaws being curved upward to the left the pliers are very handy for getting into inaccessible places. See No. 2533 B (page U 13). The jaws are partly toothed. The cutting power is sufficient for cutting off B. W. G. No. 14 (2 mm) hard steel wire, which makes these pliers serviceable for many different kinds of work in connection with repairs of instruments and apparatus, especially electrical.

Length:	8"
» of jaws:	2 3/8" (60 mm)
Cut hard steel wire	
up to: B. W. G. No....	14 (2 mm)
Finish:	Black only

FLAT AND ROUND NOSE PLIERS WITH SEMI-ROUND POINTED JAWS

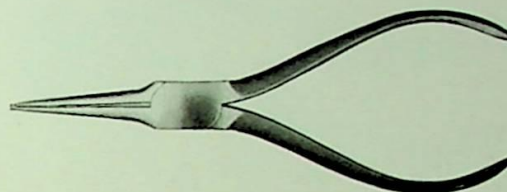
Flat and round nose pliers with outwardly rounded and strongly tapering jaws that make them extremely useful for many kinds of light work. In spite of the slenderness, the pliers have a strong grip as the jaws have hand cut gripping faces that withstand long use. Useful also for coiling and bending wire and other materials.

No. 1532 Special single joint

The long and slender, bill-shaped jaws provide a firm, elastic grip that makes these pliers a very sensitive tool. The jaws are toothed to about one third of the length. The range of utility is very large but the pliers are especially serviceable for mechanics engaged on complicated and delicate machines and apparatus, such as typewriters and calculating machines, knitting machines, stamping and recording apparatus &c. Useful for picking up needles in knitting machines.

Length: 6"
» of jaws: ... 1 5/8" (43 mm)

Finish:..... Black, polished or nickel-plated



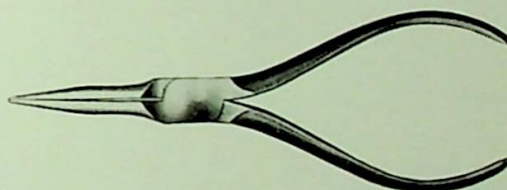
No. 1532

No. 1533 Special single joint

Resemble the preceding but more slender and more pointed (stork bill rather than duck bill) and are used for the same purposes.

Length: 6"
» of jaws: ... 1 5/8" (43 mm)

Finish:..... Black, polished or nickel-plated



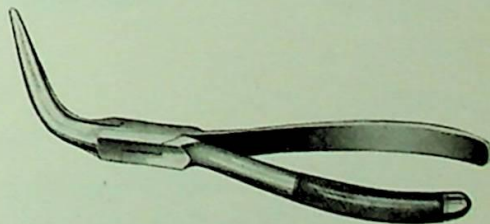
No. 1533

No. 1631 Special single joint Knurled shanks

A special model of No. 1533 having the points curved upwards. The jaws are partly toothed. These pliers are favoured by repairers of wireless apparatus on account of the reach and ease of getting at inaccessible parts, and forms part of the tool kit of instrument makers &c. Especially suitable for picking up needles of flat knitting machines with slanting needle board.

Length: 5 1/2"
» of jaws: ... 1 5/8" (40 mm)

Finish:..... Black, polished or nickel-plated

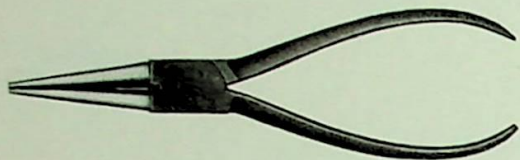


No. 1631

PLIERS

ROUND NOSE PLIERS

This type of pliers has the principal function of coiling wire and forming loops, which places a great strain on the joint and the jaws. The longer the jaws the firmer must the joint be. A double joint or BERG Special single joint are the only ones capable of withstanding the strain. Some pliers are case-hardened but those of small diameter jaws are not. Only the round part is included when stating the length of jaws.



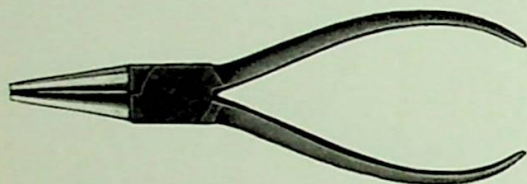
No. 5030

No. 5030 Double joint Long jaws

The jaws are very long and the pliers are made with a double joint. Used in the same line of work as the following No. 5031, except that the smaller sizes are replaced by Watchmakers' Pliers No. 5020 (see page U 18).

Length:	3 1/2"	4"	4 1/2"	5"	5 1/2"	6"	7"	8"
» of jaws:	1 1/16"	1 1/8"	1 1/4"	1 3/8"	1 1/2"	1 5/8"	1 3/4"	2"
	mm (27)	30	32	35	38	40	45	50)

Finish: Black, polished or nickel-plated



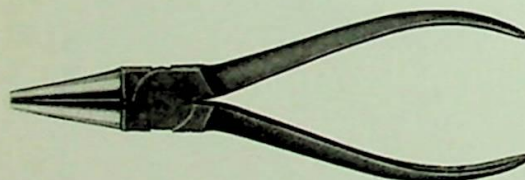
No. 5031

No. 5031 Double joint

Slightly shorter jaws than the preceding but similar in other respects. The smaller sizes are used by watchmakers, instrument makers &c. Goldsmiths, on the other hand, require more powerful pliers e. g. 6" for the shaping of wedding rings. Included in the tool kits of many craftsmen.

Length:	3"	3 1/2"	4"	4 1/2"	5"
» of jaws:	1 3/16"	7/8"	1"	1 1/16"	1 1/8"
	mm (21)	23	25	27	30)
»	5 1/2"	6"	7"	8"	
» of jaws:	1 1/4"	1 3/8"	1 5/8"	1 3/4"	
	mm (33)	35	40	45)	

Finish: Black, polished or nickel-plated



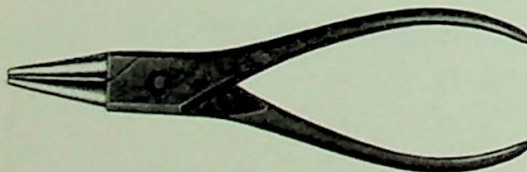
No. 5032

No. 5032 Special single joint

The jaws are slightly shorter than those of No. 5031, and made with BERG Special single joint. The uses are the same as for pliers of this description.

Length:	4"	4 1/2"	5"	6"	7"	8"
» of jaws:	7/8"	1"	1 1/16"	1 1/4"	1 1/2"	1 5/8"
	mm (23)	25	27	32	39	41)

Finish: Black, polished or nickel-plated



No. 5037

No. 5037 Single joint

Have the shortest jaws of any of BERG Round Nose Pliers and are fitted with single joint of the ordinary kind with through bolt. Included in BERG Guaranteed Quality of Tools but are cheaper on account of their simpler design.

Length:	5"	6"	7"
» of jaws:	1"	1 1/8"	1 3/8"
	mm (25)	30	35)

Finish: Black only

WATCHMAKERS' NIPPERS AND PLIERS

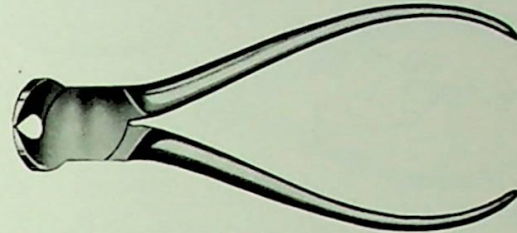
Generally speaking, the name watchmakers' nippers and pliers is applied to the polished or nickel-plated nippers and pliers of small size (also obtainable black), which are characterized by lightness and a handy design, and suitable to the particular work done by watch and instrument makers.

No. 522 Double joint

Used for cutting wire for shafts, pins, guards and numerous other operations occurring in the course of a watchmaker's work. Also used by many as pliers for gripping the hands.

Length:	3"	3 1/2"	4"	4 1/2"
Cut hard steel wire up to: B. W. G. No....	—	17	17	17
mm (—)	—	1.5	1.5	1.5)

Finish: Polished or nickel-plated



No. 522

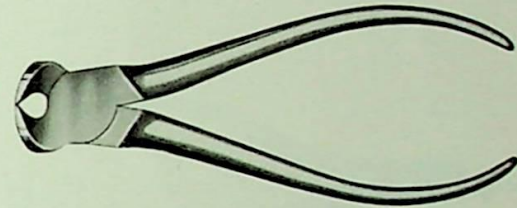
No. 523 Special single joint

Similar to No. 522 but designed with BERG Special single joint. Possess greater cutting power because of the nearness of the cutting edges to the joint.

Length:	3"	3 1/2"	4"	4 1/2"
Cut hard steel wire up to: B. W. G. No....	—	17	17	17
mm (—)	—	1.5	1.5	1.5)

Finish: Polished or nickel-plated

On special request Watchmakers' Nippers Nos. 522, 523, length 3"—4" can also be obtained with straight cutting edges.



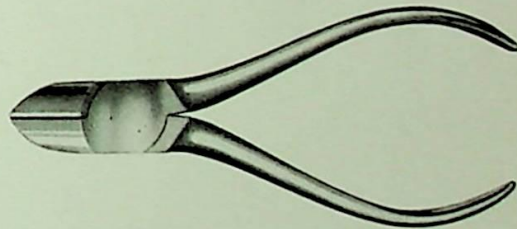
No. 523

No. 526 Double joint

These side-cutters are also found very useful in instrument making and repairs for getting at inaccessible places.

Length:	3"	3 1/2"	4"	4 1/2"
Cut hard steel wire up to: B. W. G. No. ..	19	19	17	15
mm (1	1	1.5	1.75)	

Finish: Polished or nickel-plated



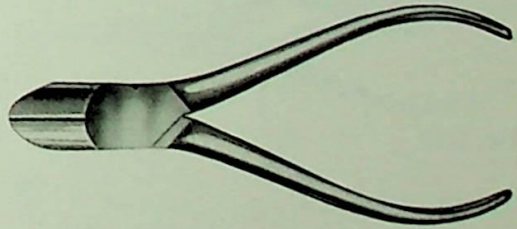
No. 526

No. 1525 Special single joint

Similar to No. 526 but designed with BERG Special single joint. The cutting power is increased considerable because of the lengthwise position of the cutting edges.

Length:	4 1/2"
Cut hard steel wire up to: B. W. G. No.	15
mm (1.75)	

Finish: Polished or nickel-plated



No. 1525

E. A. Berg Mfg. Co., Ltd., Eskilstuna, Sweden

U 17

PLIERS

WATCHMAKERS' NIPPERS AND PLIERS: Flat Nose Pliers with Semi-Round, Pointed Jaws and Round Nose Pliers



No. 1520

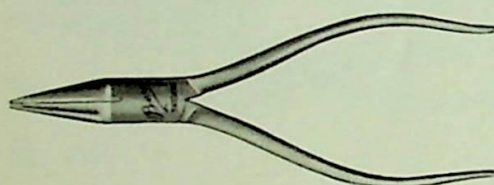
Flat Nose Pliers with Semi-round Pointed Jaws

No. 1520 Special single joint Knurled shanks

These specially attractive and perfectly designed pliers provide good sight and "feel". The jaws are toothed to about half the length. Precision make all through and intended for light precision work in the watch and instrument making trades.

Length:	3 1/2"	4"	4 1/2"
» of jaws:...	1 3/8"	1 1/2"	1 5/8"
mm	(35)	40	43)

Finish:..... Polished or nickel-plated



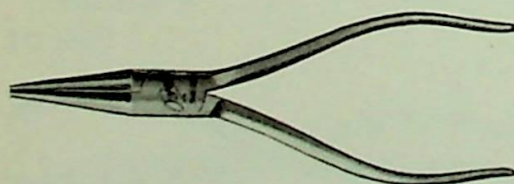
No. 1521

No. 1521 Special single joint Knurled shanks

Of the same precision workmanship as No. 1520 but designed with shorter jaws which give a stronger and more rigid grip. The jaws are toothed to about half the length. Intended for the same uses as the preceding where a shorter reach is sufficient.

Length:	3 1/2"	4"	4 1/2"
» of jaws:...	7/8"	1"	1 1/8"
mm	(23)	25	28)

Finish:..... Polished or nickel-plated



No. 5020

Round Nose Pliers

No. 5020 Special single joint Knurled shanks

Intended for the same kinds of workers as the preceding, embodying precision workmanship and having great rigidity and strength despite the slenderness of the jaws. For general bending and rolling purposes: main spring, guards and other work of that kind, encountered in watch and instrument making.

Length:	3 1/2"	4"	4 1/2"
» of jaws:...	1 5/16"	1 1/8"	1 3/16"
mm	(24)	28	30)

Finish:..... Polished or nickel-plated

WEAVERS' PLIERS: Needle and Reed Dent Pliers

The characteristic feature of these pliers is the thin jaws which are perfectly smooth on the inside. They are used mainly for straightening and removing needles in looms and knitting machines.

Needle Pliers

1570 Special single joint Knurled shanks

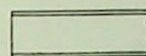
The straight, rectangular jaws make these pliers suitable for straightening knitting needles, riding teeth &c. in looms and warp machines. May also be used for picking up needles in straight-line knitting machines. Other pliers suitable for picking up needles in both straight-line and circular knitting machines are Nos. 1532, 1533 and 1631 (see page U 15).

Length: 6"
» of jaws: ... 1³/₄" (45 mm)

Finish: Black only



No. 1570



Jaws of rectangular section

No. 1572 Special single joint Knurled shanks

Longer and the jaws of more slender form than No. 1570. The extra thin jaws make the pliers suitable for straightening needles in knitting machines for silk hosiery.

Length: 7"
» of jaws: ... 2¹/₃" (55 mm)

Finish: Black only



No. 1572

On request needle pliers with rounded-off jaws instead of the straight, rectangular ones and with double joint can also be obtained.

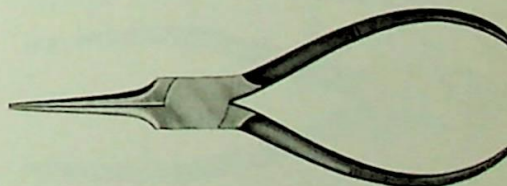
Reed Dent Pliers

No. 1571 Special single joint Knurled shanks

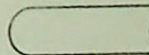
One of the jaws of these pliers is hollowed and the other arched so as to fit in the hollow of the former. A dent of the reed, or other wire fastened at both ends can be straightened with the pliers by judiciously applied pinches.

Length: 6"
» of jaws: ... 2" (50 mm)

Finish: Black only



No. 1571



Concave and convex jaws.

PLIERS

TELEPHONE OR LINEMEN'S PLIERS

A familiar type of pliers used for all kinds of wiring work and in engineering. They mostly have the character of short-jawed, stout flat nose pliers with cutting edges nearest the joint. The heavier patterns are generally used for outside wiring work. The method of use makes great demands on the material and workmanship. The pliers must possess good resistance to wear and to stresses in the joint at wrenching and bending, and the edges must stand up well to strains. The pliers must also be able to sustain shocks from being used for hammering.

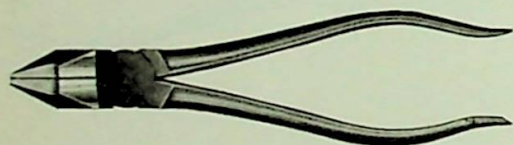


No. 595

No. 595 Double joint

The cutting edges are raised in relation to the joint and the jaws, enabling the edges to be reformed if a piece should be broken out of them. The pliers are chiefly intended for use on transmission line work.

Length:	5"	6"	7"	8"
Cut hard steel wire up to: B. W. G. No....	17	14	14	13
mm	(1.5	2	2.25	2.5)
Finish:	Black, polished or nickel-plated			



No. 596

No. 596 Special single joint

Similar to No. 595 in all respects except the joint, which is of BERG Special single joint. The cutting power is in this way increased.

Length:	5"	6"	7"	8"
Cut hard steel wire up to: B. W. G. No....	17	14	14	13
mm	(1.5	2	2.25	2.5)
Finish:	Black, polished or nickel-plated			



No. 598

No. 598 Special single joint

An older American type of pliers with flat cutting edges and a wire cutter on the side. Mostly used in the United States and Australia.

Length:	5"	6"	7"	8"
Cut hard steel wire up to: B. W. G. No....	14	13	12	11
mm	(2	2.5	2.75	3)
Finish:	Black, polished or nickel-plated			

N. B. Check-toothed on the whole inside of the jaws.

TELEPHONE OR LINEMEN'S AND CABLE PLIERS

Telephone or Linemen's Pliers

No. 696 Special single joint Knurled shanks

Powerful telephone pliers of American pattern, with or without spare material at the cutting edges. In the former case the edges can be reforged if necessary. A most serviceable tool for all kinds of wiring work; in addition to splicing and stretching, and also for hammering when tightening the tension hooks.

Length: 5" 6" 7" 8" 9"
 Cut hard steel wire
 up to: B. W. G. No. 14 13 12 11 11
 mm (2 2.5 2.75 3 3)
 Finish: Black, polished or nickel-plated



No. 696

No. 696 With wire twister Knurled shanks

These pliers are designed with wire twister, consisting of two smooth slots inside the joint, across the inside of the shanks. Two wires can be twisted together by means of these two slots, a method mostly used in the United States.

Length: 5" 6" 7" 8" 9"
 Cut hard steel wire
 up to: B. W. G. No. 14 13 12 11 11
 mm (2 2.5 2.75 3 3)
 Finish: Black, polished or nickel-plated



No. 696

For ordering: No. 696-with wire twister

N. B. Check-toothed on the whole inside of the jaws.

Cable Pliers

No. 2518 Double joint

Specially made for the telephone and telegraph industry for cutting copper and lead cables. As the cutting edges are interchangeable, they can be replaced without delay when broken or dulled. A very handy tool, necessary in linemen's work.

Length: 9"
 Finish: Black
 Cut MVI cables up to 50 mm²
 » rubber lead » » » 4×4 »
 » telephone EEB » » » Ø 120×.5 mm
 and all many-wired conductors with outer diameter » » Ø 18 »



No. 2518

Spare cutting edges and screws can be obtained.

PLIERS

SPLICING PLIERS FOR TELEPHONE LINES

The manner of using these pliers for splicing the individual wires in a telephone cable is to place the ends of two wires, which are to be spliced, one in each end of a copper nipple. The nipple with the two wires inside is then pressed together with the corrugated jaws of the pliers, which action forms a secure joint with good contact in the quickest possible time.

The pliers have a powerful grip and are strongly made with link and eccentric action. The coiled spring between the shanks makes the pliers self-opening.

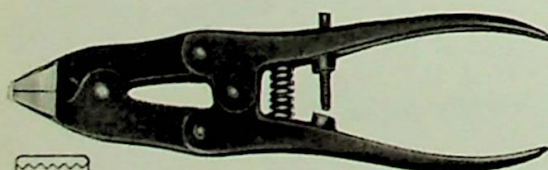


No. 568

No. 568

The jaws have lengthwise milled teeth and grooves which mesh in each other. The toothing is confined to the centre, the sides being flat. These flat strips along the sides prevent the nipple and wires from being cut off and, further, leave the wires in line and thus obviate subsequent straightening of the splice. The stop screw between the links merely serves to limit the opening of the jaws.

Length: 7"
Width of jaws: $\frac{5}{8}$ " (15 mm)
Finish: Black



No. 570

No. 570

Differ from the preceding by having the jaws toothed over the whole width. A stop screw between the shanks limits the opening so as to prevent the nipple from being cut off. The splice has to be straightened after having been squeezed together.

Length: $7\frac{1}{2}$ "
Width of jaws: $\frac{3}{4}$ " (19 mm)
Finish: Black

COMBINATION PLIERS, WIRE INSULATION REMOVERS

Combination Pliers

An all-round tool, as the name indicates. The pliers are made both for bending and cutting, as side-cutting and wire-cutting pliers, and as gas pliers; have a screw driver on one shank and a reamer on the other and will stand being used for pounding if on occasion this should be necessary. They have to be made of special material for withstanding such usage, and BERG Pliers satisfy the demands in this respect. A practical tool for all trades and especially popular with electricians and fitters of all trades.

No. 597 Special single joint

Length:	5"	6"	7"	8"	9"	12"
Cut hard steel wire up to: B. W. G. No....	17	15	14	13	13	11
mm (1.5 1.75 2 2.5 2.5 3)						
Finish:	Black, polished or nickel-plated					



No. 597

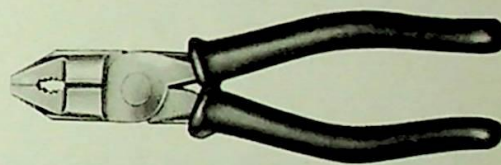
No. 597 Insulated

Fitted with insulating sockets of hard rubber these pliers may be used for handling live wires of ordinary voltages. The shanks are specially ground and the sockets consequently can not be used for No. 597 uninsulated.

Sizes, dimensions and finish: Same as for No. 597, uninsulated.

For ordering: No. 597-insulated

N. B. Check-toothed on the whole inside of the jaws.



No. 597

Wire Insulation Removers

No. 636

This tool is designed on the principle "pincer" with toothed jaws. The wire from which the silk or enamel insulation is to be removed is inserted between the jaws, which are then closed by the hand. A quick pull will then strip off the insulation effectively. Used by telephone and wireless factories and supplied for B. W. G. No. 23 and 20 (.6 and .9 mm) wire.

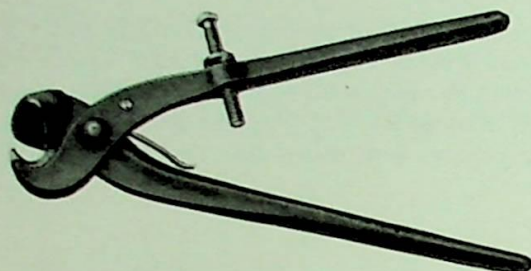
Length: 5³/₄"



No. 636

PLIERS

KUHLO AND BERGMANN PLIERS



No. 901

No. 902

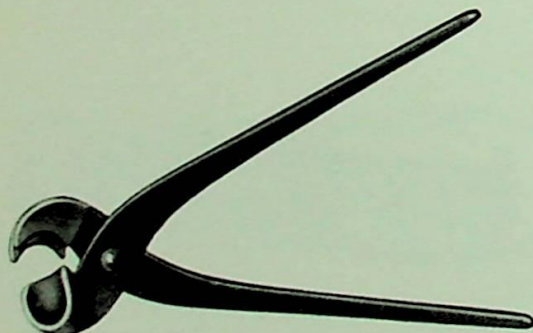
Kuhlo Pliers

No. 901 Single bowl

No. 902 Two bowls

This tool is made from malleable cast iron on account of the small strains to which it is subjected in the course of the work, viz: — the bending of lead-sheathed conductors for wiring, so-called Kuhlo conductors. One jaw is made into one and sometimes two bowls or channels. The other jaw has a tooth which fits in the centre of the channel or channels. By regulating the stop screw the movement of the jaws can be set for giving the desired bend a certain radius. Single-bowl pliers are the ones most commonly used. Used by electric fitters.

Can be obtained with or without spring.



No. 903

Bergmann Pliers

No. 903

Used for bending Bergmann sheathing tubes commonly used in house wiring for electric lighting. Designed on the same principle as Kuhlo pliers and made of malleable cast iron. Have no stop screw and made only with one bowl or channel. The different sizes of pliers only vary in the size of the channel which is adapted for tubing of different diameters. The shanks are always of the same length. Used by electric fitters.

Dimension:	$\frac{3}{8}$ "	$\frac{7}{16}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{7}{8}$ "
mm	(9)	11	13.5	16	23)

GAS AND TUBE PLIERS

Gas Pliers

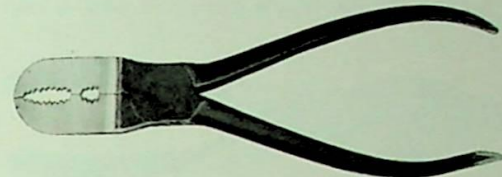
As the name indicates, the main use of these pliers was originally for gas fitting, to screw burners on gas pipes and they are still considered very handy for screwing up nipples and the like. A most convenient tool for all kinds of rough work that comes the way of repairers and mechanics. The ends of the shanks are made into screw drivers or reamers.

No. 605 Double joint

Exceedingly well made pliers with double joint and thin jaws, making them suitable for screwing up lock nuts. Have a wide range of utility and should be included in the tool kit of every mechanic and in workshops.

Length: 6"

Finish: Black, polished or nickel-plated



No. 605

No. 615 Single joint

Of simpler design than the preceding and made with riveted single joint. Have a wire groove in the jaws lengthwise, one of the shanks having a screw driver and the other a reamer on the end. A useful allround tool for simpler kinds of work.

Length: 6" 7" 8" 9" 10" 12"

Finish: Black only



No. 615

Tube Pliers

These heavy-duty pliers resemble the automobile pliers described in the following. Slip joint for a smaller and wider grip, shear cutter for wire, and milled teeth in the pipe apertures and lengthwise groove in the jaws for wire. Screw driver on one of the shanks. The pliers are very handy for screwing up nipples, couplings and nuts &c. as a complement to the regular pipe tongs of pipe fitters.

No. 611 Slip joint

Flat part of jaws check-toothed. Heavy milled teeth in the pipe apertures.

Length: 7"

Width of jaws: $7\frac{1}{16}$ " (11 mm)

Finish: Black



No. 611

No. 612 Slip joint

Pipe aperture and milled teeth of descending size all the way to the ends of the jaws. Smallest size (7") has taper jaws towards the end to provide better accessibility. No wire groove in the jaws. Handy for motor-car work.

Length: 7" 10" 12" 14"

Width of jaws: $\frac{1}{8}$ " $\frac{1}{2}$ " $\frac{9}{16}$ " $\frac{5}{8}$ "

mm (3 12 14 15)

Finish: Black



No. 612

PLIERS

MOTORCAR PLIERS WITH SLIP JOINT

So named on account of being largely included in motorcar tool kits but useful for many other purposes in manufacture and repairing.

BERG Pliers of this kind are of the same form, but of far superior quality, as the pliers which are commonly included in the tool set supplied with motorcars, some types being very popular repair shop and garage tools. In general design they are of a pattern, combining the principal feature of flat nose and pipe pliers, wrenches, wire cutting pliers, screw drivers &c. For enlarging the width of opening the pliers are designed with a slip joint.

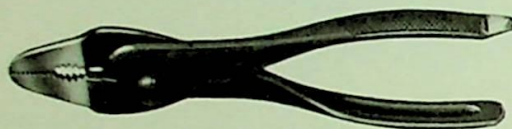


No. 613

No. 613 With wire cutter Knurled shanks

A very common type included in all car tool sets. The milled teeth in the jaws are of decreasing size towards the ends. Wire cutter on the shearing principle and knurled shanks.

Length: 7"
Cut iron wire up to: B.W.G. No. 11 (3 mm)
Finish: Black, polished or nickel-plated



No. 614

No. 614 With wire cutter Knurled shanks

Resemble No. 613 but have toothed pipe aperture in the jaws, fine toothing at the end of the jaws and screw driver on one of the shanks. Knurled shanks. Are commonly included in car tool sets.

Length: 7"
Cut iron wire up to: B.W.G. No. 11 (3 mm)
Finish: Black, polished or nickel-plated



No. 616

No. 616 With side cutter

Fixed joint with screw and nut, and have a side cutter capable of cutting hard steel wire. Toothed pipe aperture and jaws check-toothed on the flat faces at the point. Another motorcar kit tool.

Length: 5 1/2" 7 1/2"
Cut hard steel wire up to: B.W.G. No. 15 14
mm (1.75 2)
Finish: Black



No. 617

No. 617 Parrot-head Pliers, with wire cutter
Knurled shanks

The jaws are at right angles to the shanks and the joint can be slipped into four positions. Wire cutter, pipe aperture, and jaws check-toothed at the ends. Knurled shanks. In principle combine the properties of pipe wrench and spanner. Automobile kit tool.

Length: 7"
Cut iron wire up to: B.W.G. No. 11 (3 mm)
Finish: Black

PLIERS

MOTORCAR PLIERS WITH SLIP JOINT, IGNITION, NUT AND PIPE PLIERS AND UNIVERSAL TOOLS

Motorcar Pliers with Slip Joint

No. 618 Knurled shanks

On account of their action these pliers are self-locking when applied, so that pressure on one of the shanks is sufficient to make the jaws retain their grip on the part. Slip joint with four positions. Act as pipe wrench and spanner. Knurled shanks. Automobile and repair shop tool.

Length: 6" 8"

Finish: Black



No. 618

Ignition Pliers

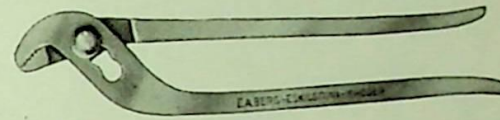
No. 631

Somewhat similar to No. 618 but are much smaller and have straight shanks. Have the character of flat nose pliers and spanner in particular, and are fitted with slip joint with three positions. Used for work in connection with the ignition systems of petrol engines. A garage tool.

Length: 4 1/2"

Width of jaws: ... 1/8" (3 mm)

Finish: Polished or nickel-plated



No. 631

Nut and Pipe Pliers

No. 632

Universal pliers of a very handy design. The arrangement of the jaws adapts them as flat nose and nut pliers, spanner, pipe tongs and wire cutters. Self-locking, very powerful grip. Despite the slender design they are capable of shearing off a 3/8" bolt. Six positions give the pliers a wide range. Shanks are hollowed on the inside, making the pliers sit easier in the hand. An excellent tool for repair and cycle shops, and should also be included in an automobile kit.

Length: 9"

Width of jaws: ... 3/16" (5 mm)

Finish: Black, polished or nickel-plated



No. 632

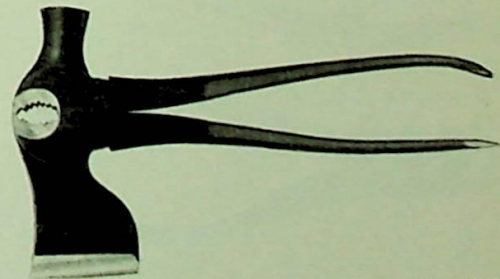
Universal Tools

No. 560

Combination axe, hammer, nipper, end-cutter, wire cutter, pipe pliers and screw driver. Whole-forged and very strong tool which may be recommended for inclusion in the tool outfit of motor cars, motor boats, in the household &c.

Length: 10" 13"

Finish: Black, polished or nickel-plated



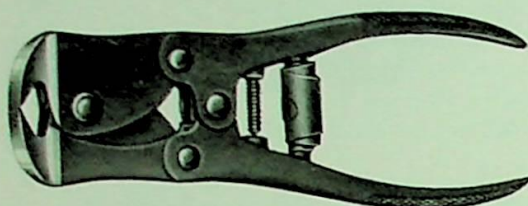
No. 560

SHOEMAKER'S
TOOLS
X

VARIOUS
TOOLS
Y

PLIERS

CYCLE NIPPERS AND FUSE CORD PLIERS



No. 515 A

Cycle Nippers.

Cutting Nippers for Cycle Spokes

No. 515 A

Multi-power nippers for piano wire, specially designed for cutting off a set of cycle wheel spokes when they are to be renewed. For this reason the width of jaws is only $\frac{5}{16}$ " (8 mm) in order to make it easy to get at the spokes. Suitable for a number of other wire cutting purposes.

Length:.....	6"	8"
Width of jaws:.....	$\frac{5}{16}$ "	$\frac{5}{16}$ "
mm	(8)	(8)
Cut piano wire up to:		
B. W. G. No.	11	11
mm	(3)	(3)
Finish:	Black	



No. 620

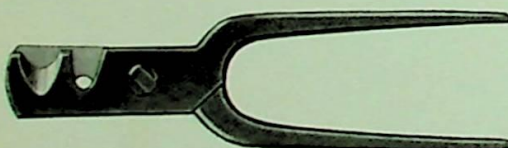
No. 620 Single joint

Originally designed for a cycle tool kit but is a very handy tool for many other purposes. Have 120° length-wise slots between the jaws enabling nuts to be conveniently gripped from the end. Screw driver on one shank.

Length:.....	7"
Finish:	Black, polished or nickel-plated

Fuse Cord Pliers

Fuse cord pliers are used at blasting for fastening the detonator cap on the fuse cord. They have a nipper for cutting off the cord, and a die which presses the detonator cap round the fuse cord.



No. 566

No. 566 Single joint

Old pattern with shear cutting edges. An inexpensive type with ordinary single joint with rivet or screw.

Length:.....	5½"
Finish:	Black, with rivet or with screw.



No. 567

No. 567 Special single joint

New pattern with opposed cutting edges and the clamping dies arranged between the jaws. BERG Special single joint and screw driver on one shank. Produces better work and are safer for handling the fuse than the older model.

Length:	6"
Finish:	Black

PLIERS

NAIL CLIPPERS

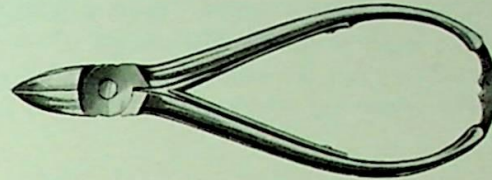
BERG Nail Clippers have carefully aligned, thin and durable cutting edges making the clippers cut with little effort and without fraying. They are equally suitable for hard service by manicurists or for personal use.

No. 4 Special single joint

Nickel-plated with file teeth on the outside of the cutting edges and clasp without spring.

No. 5 Special single joint

Polished with file teeth on the outside of the cutting edges and clasp without spring.



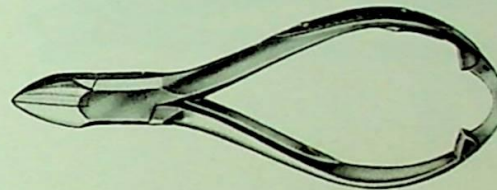
Nos. 4 and 5

No. 9 Special single joint

Nickel-plated with knurled shanks and clasp with spring.

No. 10 Special single joint

Polished with knurled shanks and clasp with spring.



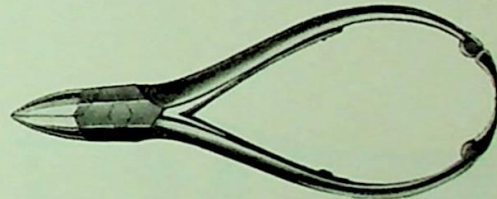
Nos. 9 and 10

No. 11 Double joint

Nickel-plated with file teeth on the outside of the cutting edges and clasp with spring.

No. 12 Double joint

Polished with file teeth on the outside of the cutting edges and clasp with spring.



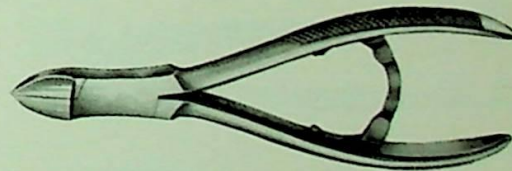
Nos. 11 and 12

No. 14 Double joint

Nickel-plated with knurled shanks, and nail-file groove in one shank. Combination spring and clasp device.

No. 15 Double joint

Polished with knurled shanks, and nail-file groove in one shank. Combination spring and clasp device.



Nos. 14 and 15

Can be obtained with straight or curved cutting edges and are then ordered: e. g.

14/R means straight cutting edges.

14/Sv » curved » »

Separate springs may be obtained for Nos. 4-12.

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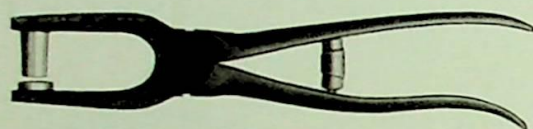
PLIERS

BRANDING PLIERS

Used for branding live stock by making an incision of a certain form in the ear or by fastening a seal in a round hole in the ear. In abattoirs the ears of carcasses are also sometimes pierced for fastening marking tags.

The demands made on good branding pliers are that they should clip through the cartilage of the ear without much effort, and without seriously crushing the tissues surrounding the cut or hole, enabling the wound to heal quickly. BERG Branding Pliers give the best results because of the good material which makes a durable sharp edge.

Branding pliers are used by live stock breeders of every description, herd societies, military authorities, game preserving estate owners, abattoirs &c.



No. 835

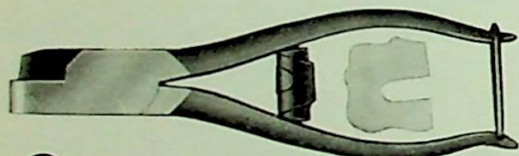
No. 835 Special single joint

For cutting round holes the hole punching tube is finished off obliquely and in consequence cuts a perfect hole in the ear cartilage of a full-grown animal with the least resistance. (Can be tested on $\frac{3}{8}$ " thick leather).

Length: 9" (240 mm)

Finish: Black

Separate punches for No. 835 may be obtained



No. 836

No. 836 Double joint

Intended for cutting V-shaped incisions in the ear. The cutting edges are of the shearing type for clipping with the greatest ease.

Length: $6\frac{1}{2}$ " (170 mm)

Finish: Black



No. 837

No. 837 Single joint

Intended for cutting out V-shaped incisions. The edge cuts against a brass die instead of shearing, but because of the sharpness of the edge and its slanting action the resistance to cutting is very moderate.

Length: $6\frac{1}{2}$ " (170 mm)

Finish: Black

FARRIERS' TOOLS: Shoeing Pincers

The group of farrier' tools comprises several simple tools, each with a special function. All the operations in connection with horse shoeing, however, with the exception of that performed by the hoof-paring knife, may be said to be combined in BERG Farriers' Pincers.

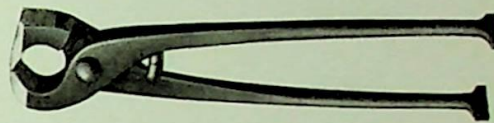
They are used for breaking loose the old shoe, and for cutting off the nail near the hoof. The toothed part on one of the jaws will serve as riveting anvil when clinching the nail, one shank made as trimming chisel and the other as a reamer. These devices are incorporated so as to make it possible to carry out the shoeing when the proper tools are not available.

No. 543

The basic form is that of ordinary heavy pincers with straight-bevelled cutting edges. Stop lugs between the shanks protect the cutting edges. One shank has a reamer and the other a chisel for trimming the hoof.

Length:	10"	11"
Cut iron wire up to:		
B. W. G. No.	13	11
mm	(2.5)	3)

Can be obtained with or without cleats.



No. 543

No. 543 G (Old Pattern)

The old pattern of Farriers' pincers is characterized by cutting edges of rounded section, which leave enough of the nail for the subsequent clinching. Also obtainable with straight-bevelled edges, making them more convenient for bending off the old shoe. Shanks as the preceding.

Length:	10"	11"
Cut iron wire up to:		
B. W. G. No.	11	11
mm	(3)	3)

Can be obtained with or without cleats.



No. 543 G



Cutting edges according to above unless otherwise specified.



Can also be obtained with straight-bevelled cutting edges.

SHOEMAKERS' TOOLS

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In case where millimetre is indicated, please refer to millimetre.

Notes:

The table below shows the relation between millimetres and inches.

MM.	INCH	MM.	INCH	MM.	INCH	MM.	INCH	MM.	INCH	MM.	INCH
1		26 ← 1		51 ← 2		76		101		126 ← 4 ¹⁵ / ₁₆	
2 ← 1/16		27 ← 1 ¹ / ₁₆		52 ← 2 ¹ / ₁₆		77 ← 3		102 ← 4		127 ← 5	
3 ← 1/8		28		53 ← 2 ¹ / ₈		78 ← 3 ¹ / ₁₆		103 ← 4 ¹ / ₁₆		128	
4 ← 3/16		29 ← 1 ¹ / ₈		54 ← 2 ¹ / ₈		79		104 ← 4 ¹ / ₈		129 ← 5 ¹ / ₁₆	
5 ← 1/4		30 ← 1 ³ / ₁₆		55 ← 2 ³ / ₁₆		80 ← 3 ¹ / ₈		105 ← 4 ³ / ₁₆		130 ← 5 ¹ / ₈	
6 ← 5/16		31		56 ← 2 ³ / ₈		81 ← 3 ³ / ₁₆		106 ← 4 ³ / ₈		131	
7 ← 3/8		32 ← 1 ¹ / ₄		57 ← 2 ¹ / ₄		82		107 ← 4 ³ / ₄		132 ← 5 ³ / ₁₆	
8 ← 1/2		33 ← 1 ⁵ / ₁₆		58 ← 2 ⁵ / ₁₆		83 ← 3 ¹ / ₄		108 ← 4 ¹ / ₄		133	
9 ← 5/8		34 ← 1 ⁵ / ₈		59 ← 2 ⁵ / ₈		84 ← 3 ⁵ / ₁₆		109 ← 4 ⁵ / ₁₆		134 ← 5 ¹ / ₄	
10 ← 3/4		35 ← 1 ³ / ₄		60 ← 2 ³ / ₄		85 ← 3 ⁵ / ₈		110 ← 4 ⁵ / ₈		135 ← 5 ⁵ / ₁₆	
11 ← 7/8		36		61 ← 2 ⁷ / ₈		86 ← 3 ⁷ / ₈		111 ← 4 ⁷ / ₈		136	
12 ← 1		37 ← 1 ⁷ / ₈		62 ← 2 ⁷ / ₈		87 ← 3 ⁷ / ₁₆		112 ← 4 ⁷ / ₁₆		137 ← 5 ³ / ₈	
13 ← 1 ¹ / ₈		38 ← 1 ¹ / ₂		63 ← 2 ¹ / ₂		88		113 ← 4 ⁷ / ₁₆		138 ← 5 ⁷ / ₁₆	
14 ← 1 ¹ / ₄		39		64 ← 2 ¹ / ₄		89 ← 3 ¹ / ₂		114 ← 4 ¹ / ₂		139	
15 ← 1 ¹ / ₂		40 ← 1 ⁹ / ₁₆		65 ← 2 ⁹ / ₁₆		90		115 ← 4 ⁹ / ₁₆		140 ← 5 ¹ / ₂	
16 ← 1 ³ / ₄		41 ← 1 ⁵ / ₈		66 ← 2 ⁵ / ₈		91 ← 3 ⁹ / ₁₆		116 ← 4 ⁹ / ₈		141 ← 5 ⁹ / ₁₆	
17 ← 1 ⁷ / ₈		42 ← 1 ¹¹ / ₁₆		67 ← 2 ¹¹ / ₁₆		92 ← 3 ¹¹ / ₁₆		117 ← 4 ¹¹ / ₁₆		142 ← 5 ¹¹ / ₁₆	
18 ← 1 ¹ / ₂		43 ← 1 ¹¹ / ₈		68 ← 2 ¹¹ / ₈		93 ← 3 ¹¹ / ₈		118 ← 4 ¹¹ / ₈		143 ← 5 ¹¹ / ₈	
19 ← 1 ³ / ₄		44 ← 1 ³ / ₄		69 ← 2 ³ / ₄		94 ← 3 ³ / ₄		119 ← 4 ³ / ₄		144 ← 5 ³ / ₄	
20 ← 1 ¹ / ₄		45 ← 1 ¹ / ₄		70 ← 2 ¹ / ₄		95 ← 3 ¹ / ₄		120 ← 4 ¹ / ₄		145 ← 5 ¹ / ₄	
21 ← 1 ¹ / ₈		46 ← 1 ¹ / ₈		71 ← 2 ¹ / ₈		96 ← 3 ¹ / ₈		121 ← 4 ¹ / ₈		146 ← 5 ¹ / ₈	
22 ← 1 ¹ / ₁₆		47 ← 1 ¹ / ₁₆		72 ← 2 ¹ / ₁₆		97 ← 3 ¹ / ₁₆		122 ← 4 ¹ / ₁₆		147 ← 5 ¹ / ₁₆	
23 ← 1 ¹ / ₈		48 ← 1 ¹ / ₈		73 ← 2 ¹ / ₈		98 ← 3 ¹ / ₈		123 ← 4 ¹ / ₈		148 ← 5 ¹ / ₈	
24 ← 1 ¹ / ₁₆		49 ← 1 ¹ / ₁₆		74 ← 2 ¹ / ₁₆		99 ← 3 ¹ / ₁₆		124 ← 4 ¹ / ₁₆		149 ← 5 ¹ / ₁₆	
25 ← 1		50		75 ← 2 ¹ / ₁₆		100 ← 3 ¹ / ₁₆		125 ← 4 ¹ / ₁₆		150 ← 5 ¹ / ₁₆	

Notes:

SHOEMAKERS' TOOLS

SHOEMAKERS' KNIVES

Shoemakers' knives are either primarily intended for cutting out the pattern of the upper leather, or for trimming the sole and heel, the latter also for general work in connection with shoemaking. There is no sharp distinction between the two, as any straight shoemakers' knife can be used for cutting out certain pattern. Very narrow, pointed, straight knives are frequently used in shoe factories for cutting uppers according to templates.

Both the knives for cutting and for trimming are of a great variety of forms to comply with traditions of this ancient craft in different countries.

The shoemakers' knives are for the sake of clearness grouped in four main types, showing where the chief demand is for each type, viz:—

1. **Scandinavian types**
2. **German and Central European types**
3. **Latin, South American and Oriental types**
4. **English and American types**

The cutting knives are placed in a single group, some of these being, however, also used as shoemakers' trimming knives. This group further contains cutting knives for canvas and other fabrics.

The world-wide reputation of BERG Shoemakers' Knives is well demonstrated by the large selection offered. They are sold in all parts of the world, and highly appreciated on account of the keen cutting power and durability of the edge, great flexibility on working due to the convenient shape, and the ease with which they can be ground and honed.

All dimensions of the widths of the knives are given in millimetres. When ordering, please specify in millimetres. For tables showing the relation between millimetres and inches, see the back of the indexleaf.

All dimensions of thickness are given in Old Birmingham or Stubs Iron Wire Gauge (B.W.G.) and its relation to millimetres is shown in the table below.

B. W. G.		B. W. G.		B. W. G.		B. W. G.	
No.	mm	No.	mm	No.	mm	No.	mm
0	8.636	7	4.572	14	2.108	21	.813
1	7.620	8	4.191	15	1.829	22	.711
2	7.214	9	3.759	16	1.651	23	.635
3	6.579	10	3.404	17	1.473	24	.559
4	6.045	11	3.048	18	1.245	25	.508
5	5.588	12	2.769	19	1.067	26	.457
6	5.156	13	2.413	20	.889	27	.406

E. A. Berg Mfg. Co., Ltd., Eskilstuna, Sweden

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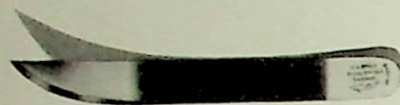


SHOEMAKERS' TOOLS

SHOEMAKERS' KNIVES: *Scandinavian Types*

General Scandinavian Patterns

This pattern of shoemakers' knife is highly appreciated in the whole of Scandinavia and also in Germany and Poland because of its flexible and convenient shape and extremely high cutting power. The knife made with a full curve to the right is the one mostly used, and is the standard pattern for makers of handmade shoes. The one curved to the left is for left-handed shoemakers, and the straight pattern chiefly for shoe factories (fitted with handle No. 952) for cutting out linings &c.



No. 105

No. 105

Fully right curved.

Width: 10—22 mm

Thickness: B. W. G. No. 19 (1 mm)



No. 106

No. 106

Straight.

Width: 3—22 mm

Thickness: Width: 3—8 = B. W. G. No. 19 (1mm)

» 10—22 = » » 19 (1.1 »)



No. 107

No. 107

Semi right curved.

Width: 15—22 mm

Thickness: B. W. G. No. 19 (1 mm)



No. 108

No. 108

Fully left curved.

Width: 15—22 mm

Thickness: B. W. G. No. 19 (1 mm)



No. 109

No. 109

Semi left curved.

Width: 15—22 mm

Thickness: B. W. G. No. 19 (1 mm)

Norwegian Patterns

The Norwegian pattern is more stoutly made than the general Scandinavian one and may consequently be recommended as suitable for heavy and coarse leather.



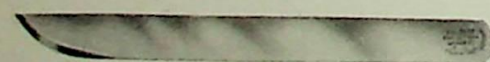
No. 175

No. 175

Curved to the right, polished.

Width: $\frac{1}{2}$ "— $1\frac{1}{4}$ " ($1\frac{1}{4}$ " is 12" long)

Thickness: B. W. G. No. 16 (1.6 mm)



No. 176

No. 176

Straight, polished.

Width: $\frac{1}{4}$ "— $1\frac{1}{4}$ " ($1\frac{1}{4}$ " is 12" long)

Thickness: B. W. G. No. 16 (1.6 mm)

The illustrations are reproduced $\frac{1}{4}$ actual size.

For table showing the relation between mm and inches, see the back of the indexleaf.

SHOEMAKERS' TOOLS

SHOEMAKERS' KNIVES: German and Central European Types

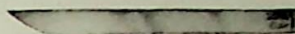
German Shoemakers' Knives

The patterns listed below up to No. 816 incl. are generally called German shoemakers' knives, but are also used in a number of places outside Germany, in Europe and overseas countries where German export firms have built up a trade.

No. 156

Straight, polished all over, with lug.

Width: $\frac{1}{2}$ " Thickness: B. W. G. No. 18 (1.3 mm)

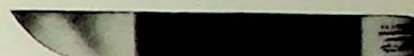


No. 156

No. 161

Straight.

Width: 10—22 mm Thickness: B. W. G. No. 19 (1.1 mm)

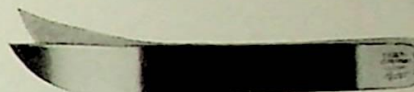


No. 161

No. 162

Semi right curved.

Width: 8—22 mm Thickness: B. W. G. No. 19 (1.1 mm)

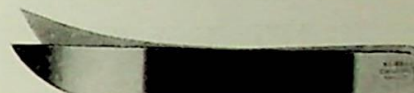


No. 162

No. 163

Fully right curved.

Width: 8—22 mm Thickness: B. W. G. No. 19 (1.1 mm)



No. 163

No. 164

Straight.

Width: 22 mm Thickness: B. W. G. No. 18 (1.3 mm)

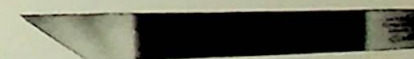


No. 164

No. 165

Straight.

Width: 8—22 mm Thickness: B. W. G. No. 18 (1.3 mm)

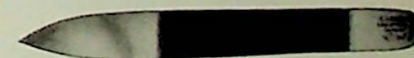


No. 165

No. 169

Straight.

Width: 22 mm Thickness: B. W. G. No. 19 (1.1 mm)



No. 169

No. 170

Fully right curved.

Width: 10—22 mm Thickness: B. W. G. No. 19 (1.1 mm)

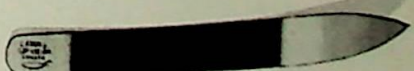


No. 170

No. 171

Left curved.

Width: 10—22 mm Thickness: B. W. G. No. 19 (1.1 mm)



No. 171

For table showing the relation between mm and inches, see the back of the indexleaf.

The illustrations are reproduced $\frac{1}{4}$ actual size.

SHOEMAKERS' TOOLS

SHOEMAKERS' KNIVES: German and Central European Types

German Shoemakers' Knives (cont'd)



No. 172

No. 172

Straight, polished all over.

Width: 6 mm Thickness: B. W. G. No. 21 (.8 mm)

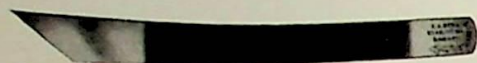


No. 672

No. 672

Straight, polished all over.

Width: 12.5 mm Thickness: B. W. G. No. 15 (1.8 mm)

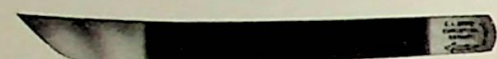


No. 668

No. 668 *Straight edge*

Straight edge.

Width: 12-20 mm Thickness: B. W. G. No. 16 (1.6 mm)

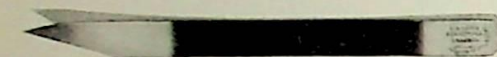


No. 668

No. 668 *Curved edge*

Curved edge.

Width: 12-20 mm Thickness: B. W. G. No. 16 (1.6 mm)

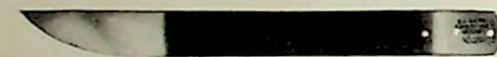


No. 688

No. 688

Semi right curved.

Width: 12-17 mm Thickness: B. W. G. No. 19 (1.1 mm)

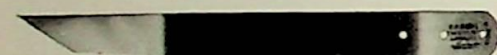


No. 689

No. 689

Straight.

Width: 12-22 mm Thickness: B. W. G. No. 18 (1.3 mm)



No. 833

No. 833

Straight.

Width: 23 mm Thickness: B. W. G. No. 16 (1.6 mm)

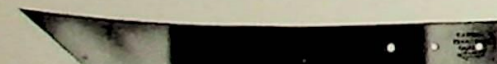


No. 690

No. 690

Straight.

Width: 5-20 mm Thickness: B. W. G. No. 19 (1.1 mm)

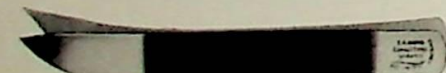


No. 692

No. 692

Straight.

Width: 23 or 25 mm Thickness: B. W. G. No. 15 (1.8 mm)

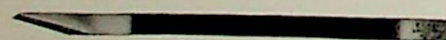


No. 694

No. 694

Fully right curved.

Width: 18-23 mm Thickness: B. W. G. No. 19 (1.1 mm)

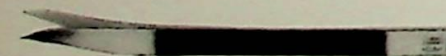


No. 815

No. 815

Straight.

Width: 10 mm Thickness: B. W. G. No. 18 (1.3 mm)



No. 816

No. 816

Fully right curved.

Width: 12 mm Thickness: B. W. G. No. 18 (1.3 mm)

The illustrations are reproduced $\frac{1}{4}$ actual size.

For mm and inch table, see the back of the indexleaf.

SHOEMAKERS' TOOLS

SHOEMAKERS' KNIVES: German and Central European Types

Dutch Shoemakers' Knives

No. 837

Straight.

Width: 22 mm

Thickness: B. W. G. No. 18 (1.3 mm)



No. 837

Vienna Patterns

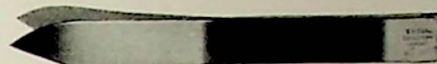
No. 200

Fully right curved but can also be had fully left curved.

Length: $9\frac{1}{2}$ " , $10\frac{1}{4}$ " or 12"
mm (240, 260 or 300)

Width: 21 mm

Thickness: B. W. G. No. 21×17 (.8 x 1.5 mm)



No. 200

No. 746

Fully right curved.

Width: 22 mm

Thickness: B. W. G. No. 19 (1.1 mm)



No. 746

No. 747

Fully right curved.

Width: 22 mm

Thickness: B. W. G. No. 19 (1.1 mm)



No. 747

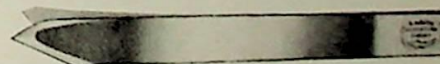
Hungarian Shoemakers' Knives

No. 210

Fully right curved.

Width: 21 mm

Thickness: B. W. G. No. 21×17 (.8 x 1.5 mm)



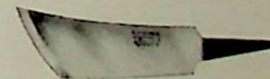
No. 210

No. 624

Straight, polished all over.

Width: 31 mm

Thickness: B. W. G. No. 16 (1.6 mm)



No. 624

For table showing the relation between mm and inches,
see the back of the indexleaf.

The illustrations are reproduced $\frac{1}{4}$ actual size.

SHOEMAKERS' TOOLS

SHOEMAKERS' KNIVES: *Latin, South American and Oriental Types*



No. 201

No. 201

Fully right curved.

Width: 18 or 21 mm

Thickness: B.W.G. No. 21×17 (.8×1.5 mm)

Width 21 mm also in

B. W. G. No. 19×14 (1 ×2.2 mm)



No. 202

No. 202

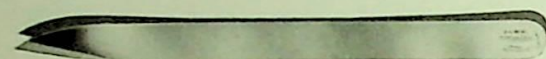
Fully right curved.

Width: 17, 19 or 21 mm

Thickness: B.W.G. No. 21×17 (.8×1.5 mm)

No. 19×15 (1×1.8 »)

No. 19×14 (1×2 ») resp.



No. 203

No. 203

Polished, fully right curved.

Length: 11³/₁₆" 12" 13" or 13³/₈"

mm (280 300 325 » 340)

Width: 22 mm

Thickness: B.W.G. No. 19×14 (1×2 mm)



No. 204

No. 204

Fully right curved, polished all over.

Width: 25, 30 or 35 mm

Thickness: B.W.G. No. 18 (1.3 mm)



No. 205

No. 205

Fully left curved, polished all over.

Width: 25, 30 or 35 mm

Thickness: B.W.G. No. 18 (1.3 mm)



No. 212

No. 212

Fully right curved, polished all over.

Length: 12³/₄ or 14³/₈"

mm (320 or 360)

Width: 18.5 or 22 mm resp.

Thickness: B.W.G. No. 19×14 (1×2.2 mm)



No. 586

No. 586

Fully right curved.

Width: 12—24 mm

Thickness: B.W.G. No. 18 (1.3 mm)



No. 587

No. 587

Fully right curved, extra point.

Width: 12—24 mm

Thickness: B.W.G. No. 18 (1.3 mm)

The illustrations are reproduced ¹/₄ actual size.

For table showing the relation between mm and inches, see the back of the indexleaf.

SHOEMAKERS' TOOLS

SHOEMAKERS' KNIVES: *English and American Types*

English Shoemakers' Knives

No. 196

Straight, polished all over, with oval birch handle.

Width: 16×22 mm Thickness: B. W. G. No. 19 (1.1 mm)



No. 196

No. 196 A

Straight, polished all over, with oval birch handle.

Width: 7×22 mm Thickness: B. W. G. No. 19 (1.1 mm)



No. 196 A

No. 196 B

Straight, polished all over, with oval birch handle.

Width: 13×22 mm Thickness: B. W. G. No. 19 (1.1 mm)

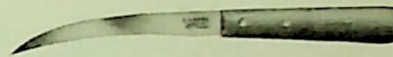


No. 196 B

No. 196 C

Straight, polished all over, with oval birch handle.

Width: 13 mm Thickness: B. W. G. No. 19 (1.1 mm)

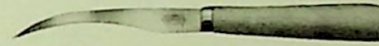


No. 196 C

No. 196 D

Straight, polished all over, with round birch handle.

Width: 12 mm Thickness: B. W. G. No. 19 (1.1 mm)



No. 196 D

No. 196 E

Straight, polished all over, with round birch handle.

Width: 16 mm Thickness: B. W. G. No. 19 (1.1 mm)



No. 196 E

No. 196 F

Straight, polished all over, with oval birch handle.

Width: 25 mm Thickness: B. W. G. No. 19 (1.1 mm)

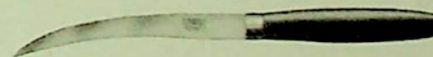


No. 196 F

No. 196 G.

Straight, polished all over, with round birch handle.

Width: 13 mm Thickness: B. W. G. No. 15 (1.8 mm)



No. 196 G

No. 196 H

Straight, polished all over, with round birch handle.

Width: 13 mm Thickness: B. W. G. No. 18 (1.3 mm)



No. 196 H

No. 196 K

Straight, polished all over, with oval birch handle.

Width: 16×19 mm Thickness: B. W. G. No. 18 (1.3 mm)



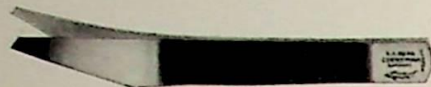
No. 196 K

For table showing the relation between mm and inches,
see the back of the indexleaf.

The illustrations are reproduced $\frac{1}{4}$ actual size.

SHOEMAKERS' TOOLS

SHOEMAKERS' KNIVES: *English and American Types*



No. 101

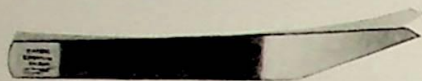
English Patterns

No. 101 *Fully right curved*

Fully right curved.

Width: 10—22 mm

Thickness: B. W. G. No. 18 (1.3 mm)



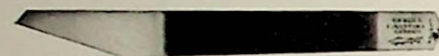
No. 101

No. 101 *Fully left curved*

Fully left curved.

Width: 10—22 mm

Thickness: B. W. G. No. 18 (1.3 mm)



No. 102

No. 102

Straight.

Width: 10—22 mm

Thickness: B. W. G. No. 18 (1.3 mm)



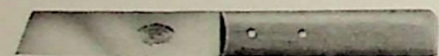
No. 191

No. 191

Straight, polished all over, with oval birch handle.

Width: 23 mm

Thickness: B. W. G. No. 19 (1.1 mm)



No. 195

No. 195

Straight, polished all over, with oval birch handle.

Width: 25 mm

Thickness: B. W. G. No. 16 (1.6 mm)



No. 347

No. 347

Straight, polished all over, with round birch handle.

Width: 15 mm

Thickness: B. W. G. No. 19 (1.1 mm)

The illustrations are reproduced $\frac{1}{4}$ actual size.

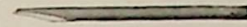
For table showing the relation between mm and inches, see the back of the indexleaf.

SHOEMAKERS' TOOLS

SHOEMAKERS' CUTTING KNIVES: *For Leather and Canvas*

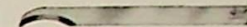
For cutting out uppers with the aid of templates, and linings of canvas and other woven fabrics for footwear; for cutting similar materials for overalls, shirts &c. At the same time, any of the straight patterns of shoemakers' knives may be used for such work. A distinctive feature of these cutting knives is, however, that the edge often has a backward convex profile. The knife is held like a dagger and the cutting is done with the knife in an almost upright position. Certain models are very pointed in order to enter into the most pointed recesses of the templates.

No. 148
Oval, polished all over.
Width: 7 mm
Thickness: B. W. G. No. 19 (1 mm)



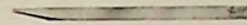
No. 148

No. 148 *Special point*
Oval, polished all over, with special point.
Width: 7 mm
Thickness: B. W. G. No. 19 (1 mm)



No. 148

No. 149
Flat, polished all over.
Width: 8.5 mm
Thickness: B. W. G. No. 19 (1 mm)



No. 149

Nos. 148 and 149 are used for cutting uppers according to templates, in which case they are fitted with handle No. 823 (See page X 10). The oval blade is rather stiffer than the flat one. Both are used in shoe factories.

Danish Patterns

No. 180
Straight, with birch handle.
Width: 7—25 mm (7 mm = 7 1/4" long)
Thickness: B. W. G. No. 18 (1.3 mm)



No. 180

No. 181
Straight, with birch handle.
Width: 10—22 mm
Thickness: B. W. G. No. 18 (1.3 mm)

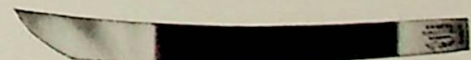


No. 181

The birch handle should be shortened at the blade as the knife becomes shorter from repeated re-sharpening.

German Patterns

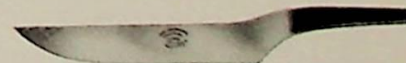
No. 372
Straight.
Width: 20 mm
Thickness: B. W. G. No. 16 (1.6 mm)



No. 372

Sold largely to overall and shirt factories and similar users.

No. 469
Straight, polished all over.
Width: 22 mm
Thickness: B. W. G. No. 8 (4 mm)



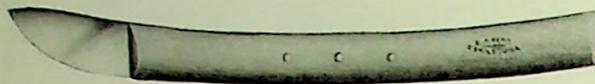
No. 469

For table showing the relation between mm and inches, see the back of the indexleaf.

The illustrations are reproduced 1/4 actual size.

SHOEMAKERS' TOOLS

SHOEMAKERS' CUTTING KNIVES AND HANDLES



No. 767

(1/4 actual size)

Shoemakers' Cutting Knives

No. 767

Straight, polished all over.

Width: 25 mm

Thickness: B. W. G. No. 16×13 (1.6×2.3 mm)

The handle should be shortened as the blade becomes shorter from repeated re-sharpening.



No. 823

Handle for Shoemakers' Cutting Knives

No. 823

Made both with or without awl.

Handle for cutting knives Nos. 148 and 149, (see page X9). Fastened in the desired position with a set screw, and moved forward after each regrinding. The handle may be wound with leather or used uncovered as desired. The scratch awl, when fitted, is hard soldered and can not work loose. Used in shoe factories.



No. 952

Handle for Shoemakers' Knives

No. 952

Made of ~~birchwood~~ **Rosewood**

Suitable for different patterns of these knives, and especially for straight ones when the width does not exceed 22 mm.

For table showing the relation between mm and inches, see the back of the indexleaf.

SHOEMAKERS' TOOLS

RUBBER KNIVES

A great many different kinds and styles of knives are used in the rubber industry, in the manufacture of goloshes and rubber overshoes, rubber boots and slippers, automobile and cycle tires &c.

The knives may be roughly classified into four groups according to the nature of the work for which they are intended, although naturally they can be used for other operations as well.

1. Trimming and Universal Knives

In this group are found patterns used for preparation of the rubber when in rolls, (in which the sheet of rubber is repeatedly cut off), in the preparation of the rubber for rubber shoes and tyres, for cutting out soles and uppers with the aid of templates, by makers of rubber overshoes for separating parts stuck together, for cutting away excess material in making shoes and tyres &c. These knives, consequently, are of universal utility in the industry in question.

2. Cutting Knives

These knives are long and narrow which makes them suitable for cutting out parts according to templates, being also used to cut off rubber articles in the course of turning.

3. Cutting Points

The point of these knives is V-shaped and bevel ground on both sides and they are used for the same purpose as the preceding.

4. Cutting Machine Knives

Used in automatic cutting machines for rubber soles and other goods of this kind. Usually made to order from samples of the goods sent in.

The steel for rubber knives must provide a keen and durable edge so as to keep the knife sharp in spite of the abrasion due to the gritty components in the rubber compound. The demands on a flexible, long and narrow knife to be used for cutting according to templates are suitable hardness and resilience and absence of flaws in the material. The latter is especially important, as many accidents and lost working hours have been caused in the rubber industry from fractured knives.

A maximum of safety is ensured by using BERG Rubber Knives.

All dimensions of the widths of the knives are given in millimetres. When ordering, please specify in millimetres. For tables showing the relation between mm and inches, see the back of the indexleaf.

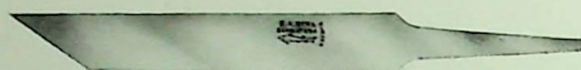
All dimensions of thickness are given in Old Birmingham or Stubbs Iron Wire Gauge (B. W. G.), and also in millimetres. When ordering, please specify in millimetres. For B. W. G. and mm table, see page X1.

SHOEMAKERS' TOOLS

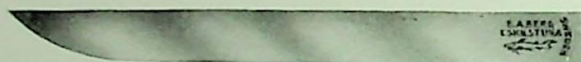
RUBBER KNIVES



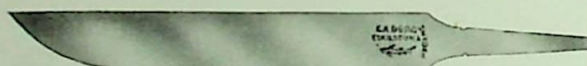
No. 182 (1/4 actual size)



No. 185 (1/2 actual size)



No. 361 (1/2 actual size)



No. 393 (1/2 actual size)



No. 830 A (1/2 actual size)



No. 241 (1/4 actual size)



No. 798 (1/4 actual size)

Trimming and Universal Knives

No. 182

Straight, polished all over.

Width: 18 mm

Thickness: B. W. G. No. 19 (1 mm) 19 (1.1 mm)
18 (1.3 »)

No. 185

Straight, polished all over.

Width: 15 mm

Thickness: B. W. G. No. 19 (1 mm) 19 (1.1 mm)
18 (1.3 »)

No. 361

Straight, polished all over.

Width: 13 mm

Thickness: B. W. G. No. 21 (.8 mm) 19 (1 mm)
19 (1.1 ») 18 (1.3 »)

No. 393

Straight, polished all over.

Width: 15 mm

Thickness: B. W. G. No. 19 (1.1 mm)

No. 830 A

Straight, polished all over.

Width: 13 mm

Thickness: B. W. G. No. 16 (1.6 mm)

No. 241

Polished, with birch handle.

Width: 33 mm

Thickness: B. W. G. No. 16 (1.6 mm)

No. 798

Polished, with birch handle.

Width: 23 mm

Thickness: B. W. G. No. 18 (1.3 mm)

For table showing the relation between mm and inches, see the back of the indexleaf.

SHOEMAKERS' TOOLS

RUBBER KNIVES

Cutting Knives

No. 183
Straight, polished all over.
Width: 14 or 15 mm Thickness: B. W. G. No. 19
(1 mm) 19 (1.1 mm) 18 (1.3 mm)

No. 434
Straight, polished all over.
Width: 15 mm Thickness: B. W. G. No. 19
(1 mm) 19 (1.1 mm) 18 (1.3 mm)

No. 497
Straight, polished all over.
Width: 15 mm Thickness: B. W. G. No. 19
(1 mm) 19 (1.1 mm) 18 (1.3 mm)

No. 498
Straight, polished all over.
Width: 14 mm Thickness: B. W. G. No. 19
(1 mm) 19 (1.1 mm) 18 (1.3 mm)

No. 830
Straight, polished all over.
Width: 13 mm Thickness: B. W. G. No. 16
(1.6 mm)

No. 740
Straight, polished all over.
Width: 5 or 10 mm Thickness: B. W. G. No. 18
(1.3 mm). Width 10 mm also
in B. W. G. No. 14 (2 mm)

Cutting Points

No. 184
Straight, polished all over.
Width: 14 or 15 mm Thickness: B. W. G. No. 19
(1 mm) 19 (1.1 mm) 18 (1.3 mm)

No. 435
Straight, polished all over.
Width: 15 mm Thickness: B. W. G. No. 19
(1 mm) 19 (1.1 mm) 18 (1.3 mm)

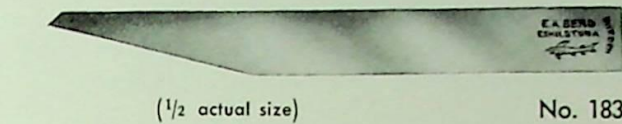
No. 704
Straight, polished all over.
Width: 7 mm Thickness: B. W. G. No. 21
(.8 mm)

Cutting Machine Knives

No. 703
Straight.
Width: 5.2 mm Thickness: B. W. G. No. 14
(2 mm) and 13 (2.5 mm)

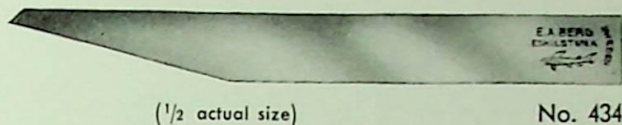
For automatic cutting of rubber soles. The
slanting edge gives the soles a bevelled edge.

For table showing the relation between mm
and inches, see the back of the indexleaf.



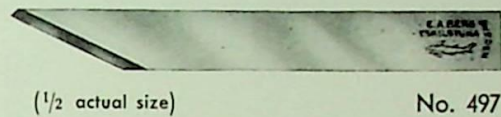
(1/2 actual size)

No. 183



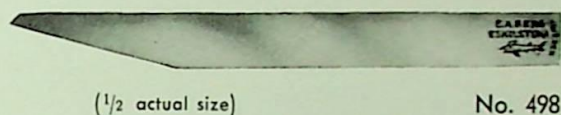
(1/2 actual size)

No. 434



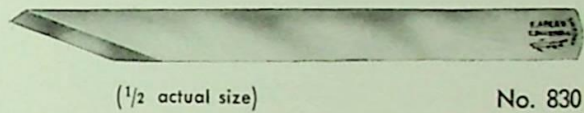
(1/2 actual size)

No. 497



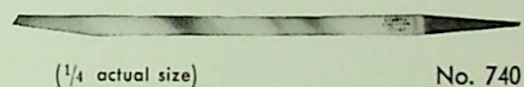
(1/2 actual size)

No. 498



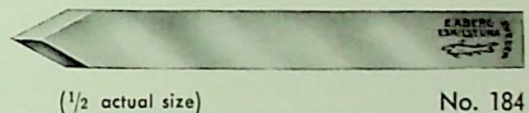
(1/2 actual size)

No. 830



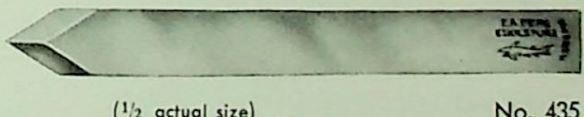
(1/4 actual size)

No. 740



(1/2 actual size)

No. 184



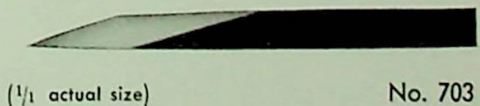
(1/2 actual size)

No. 435



(1/2 actual size)

No. 704



(1/1 actual size)

No. 703

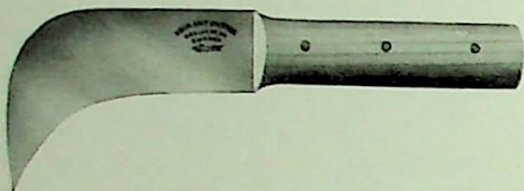
VARIOUS
TOOLS



SHOEMAKERS' TOOLS

LEATHER AND LINOLEUM KNIVES

These knives are characterized by their, generally more or less curved point and edge profile. When used, the knife is held with a full hold round the handle, with the edge and point turned towards the top or underside of the carpet depending on whether the cutting is performed from above or below, both methods being practised by carpet layers.

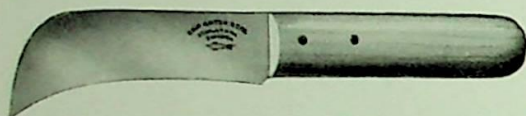


No. 16

No. 16

This is the most popular style of knife which is equally advantageous for cutting leather and fashioning linoleum carpets. The strongly curved edge makes it especially adapted for cutting heavy sole leather.

Length of blade: $4\frac{1}{8}$ " (105 mm)

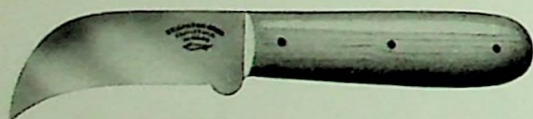


No. 17

No. 17

Another popular knife with a shorter point than the preceding, and for this reason preferred for certain work.

Length of blade: $4\frac{3}{4}$ " (120 mm)



No. 18

No. 18

The blade of this knife is provided with a protecting lug as a safeguard against slipping.

Length of blade: $4\frac{1}{8}$ " (105 mm)



No. 19

No. 19

The standard pattern has the edge on the concave side of the knife. To special order the edge will be ground on the convex side, in which case it is frequently used for trimming a thin edge on leather, or for cutting thinner kinds of leather on a table.

Length of blade: $3\frac{1}{8}$ " (80 mm)

SHOEMAKERS' TOOLS

LEATHER AND LINOLEUM KNIVES

No. 20

The only pattern of these knives with a straight edge. The slant of the edge in relation to the handle gives a certain compensation for the curvature of the other knives used for the same or similar purposes.

Length of blade: approx. $4\frac{3}{4}$ " (120 mm)



No. 20

No. 21

The rest for the index finger on the back of the blade and the grooving of the handle provide a firm grip.

Length of blade: approx. $4\frac{3}{8}$ " (110 mm)

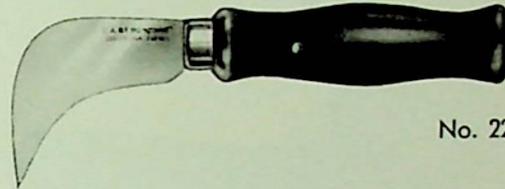


No. 21

No. 22

This small pattern of leather and linoleum knife is preferred by many, and is largely used both for cutting sole leather and fashioning linoleum carpets. Next to No. 16 it is the one most in demand.

Length of blade: approx. $2\frac{1}{2}$ " (65 mm)



No. 22

No. 23

Especially adapted for cutting linoleums in inaccessible places such as underneath radiators &c. Used by carpet layers to supplement knives Nos. 16 and 22.

Length of blade: approx. $4\frac{3}{8}$ " (110 mm)



No. 23

No. 24

This knife is used for the same purpose as No. 16, which it resembles except being $\frac{5}{8}$ " (15 mm) shorter, making it less flexible.

Length of blade: approx. $3\frac{1}{2}$ " (90 mm)

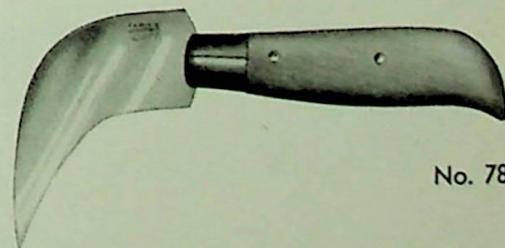


No. 24

No. 78

Corresponds most nearly in size and shape with No. 22 but with a longer point. In make and finish it is considerably more expensive.

Length of blade: approx. $2\frac{1}{2}$ " (65 mm)



No. 78

SHOEMAKERS' TOOLS

CARDBOARD AND SADDLER'S KNIVES, MOUNT CUTTING BLADES



No. 8

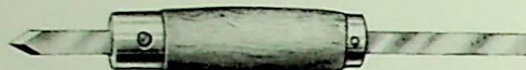
Cardboard Knives

No. 8

For cardboard work. Black lacquered birch handle. Oxidized iron ferrule. Polished blade.

Length of blade: 2" (50 mm) Length of knife: 6" (150 mm)

Used by bookbinders and cardboard box makers.



No. 305/952

Mount Cutting Blades

No. 305 (Handle No. 952)

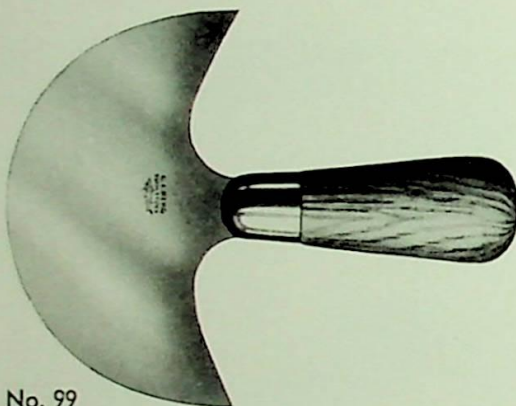
Made from especially fine knife steel in order to withstand the strongly dulling effect of cutting cardboard and other paper goods. May be used with handle No. 952 by inserting liners on the sides of the blade, and are then ordered: No. 305/952. (See page X 10)

Polished all over.

Length: 10" (260 mm) Width: $\frac{3}{8}$ " (10 mm)

Thickness: B. W. G. No. 16 (1.7 mm)

Used by bookbinders and cardboard box makers.



No. 99

Saddler's and Harnessmaker's Knives

Harnessmaker's knives manufactured by BERG include so-called crescents and half-crescents. The crescent knife is the universal knife of the harnessmaker, and is used by him for cutting out shapes and for thinning off the edges of the leather. The half-crescent finds its chief utility for certain work in connection with making belting.

Crescent Knives

No. 99

BERG Crescent Knife is distinguished by its thin and yet firmly secured blade and keen edge.

With edge from point to point. Varnished birch handle, with brass ferrule.

Length of blade from point to point: approx: 12" (305 mm)



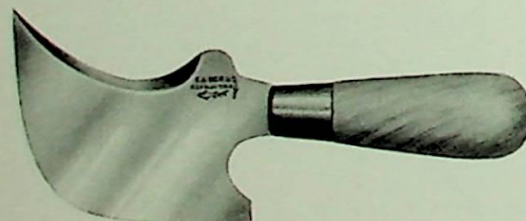
No. 574

Half-Crescent Knives

No. 574

Edge on one side, the convex one, only. Varnished curled birch handle and brass ferrule.

Length of blade: approx: $4\frac{3}{8}$ " (110 mm)



No. 727

Double-edged Half-Crescent Knives

No. 727

Has also the concave side of the knife ground to a sharp edge, with a relatively short bevel. Used largely for cutting leather.

Edged on both sides. Varnished birch handle, with brass ferrule.

Length of blade: 4" (100 mm)

SHOEMAKERS' TOOLS

WELT TRIMMING KNIVES

No. 51

With or without handle.



No. 51

No. 52

With or without handle.

As the name indicates, these knives or cutters are used for clean-cutting and trimming the welt of a shoe. The small finger acts as guide along the upper of the shoe, while the forward edge cuts when pushed away from the worker. The above two patterns merely differ in the shape of the blade. Used by handwork shoemakers.

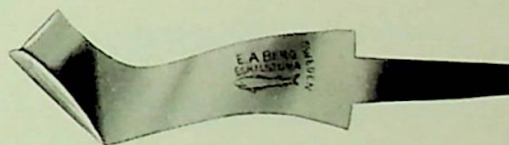


No. 52

No. 53

With or without handle.

The part of the blade which slides along the upper of the shoe is turned up into a flap; in other respect the tool functions like the preceding.

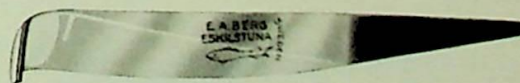


No. 53

No. 54

With or without handle.

The basic form is that of an ordinary shoe knife, with an edge on one side. The point is, however, made into a protective knob in order to prevent cutting into the upper leather. The cutting is done towards the worker, and the knife can be used for trimming the edges of the sole in addition to the welt. Used by handwork shoemakers and in shoe factories.



No. 54

SHOEMAKERS' TOOLS

SUNDRY SHOEMAKERS' TOOLS: *Insole Knives, Channelling Irons and Sole Channel Openers*



No. 55

Insole Knives

No. 55
With or without handle.



No. 56

No. 56
With or without handle.



No. 57

No. 57
With or without handle.
These knives are used by handwork shoemakers for trimming down the edge of insoles, the cutting being done by the front edge while the turned-up side of the blade guides the knife.



No. 58

No. 58
With or without handle.
Used for the same purposes as the preceding, the front edge being sharpened into a cutting edge. One side is shaped so as to serve as a guide in the sidewise direction, in addition to which there is a flange for fixing the depth of the cut.



No. 470

Channelling Irons

No. 470
This tool is used to channel out a groove in the line scribed for stitching the sole fast to the welt, and in that way makes room for the thread. The hole-shaped knife at the end cuts a circular string out of the leather which emerges through the hole or eye and leaves a channel for the stitching. A tool for handwork shoemakers.



No. 471

Sole Channel Openers

No. 471
Shoemakers use this tool for widening the line scribed for stitching the sole to the welt.

SHOEMAKERS' TOOLS

LEATHER PINCERS

These leather or shoe pincers are used in the manufacture of footwear or for cobbling, to stretch the upper leather over the last and hold it in position whilst nailing.

A good leather pincer should give a good grip with the jaws when the pincer is pivoted against the grooved outside of the shank or anvil of the pincer.

All BERG Leather Pincers are characterized by light and at the same time firm movement due to the good workmanship and fine fit. The milled teeth of the jaws are a perfect fit, as proved by the tissue paper test. This means that a piece of tissue paper can be clamped fast without being damaged or torn. The pincers are case-hardened which gives them unsurpassed strength and durability.

The leather pincers listed on this sheet are especially suitable for handling heavy leather in cobbling and the like. As the tool is only used occasionally a simple riveted joint is usually sufficient, enabling a shoemaker to procure a first class tool at a low price.

No. 501 Single joint

Length: 10" (250 mm) Width of jaws: $\frac{3}{4}$ " (20 mm)

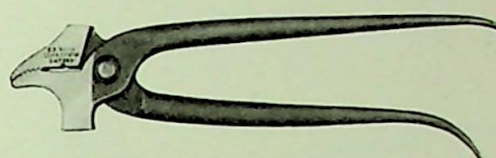
No. 502 Single joint

Length: 9" (225 mm) Width of jaws: $\frac{5}{8}$ " (16 mm)

No. 503 Single joint

Length: 8" (200 mm) Width of jaws: $\frac{1}{4}$ " (7 mm)

The jaws have fine teeth at the point which tends to prevent scoring of the leather and farther in, milled teeth and thread groove. The grooved anvil is forged in one piece with the shank. The jaws are slightly curved. The pincers are made in three sizes of different lengths and widths of jaw. The smallest size has only $\frac{1}{4}$ " (7 mm) wide jaws, and is a handy tool for cobblers.



Nos. 501, 502, 503

No. 505 Single joint

Length: 10" (250 mm) Width of jaws: $\frac{3}{4}$ " (20 mm)

No. 506 Single joint

Length: 9" (225 mm) Width of jaws: $\frac{5}{8}$ " (16 mm)

No. 507 Single joint

Length: 8" (200 mm) Width of jaws: $\frac{1}{4}$ " (7 mm)

Pincers with straight jaws, finely toothed at the point and with milled teeth and thread channel farther in. The grooved part on the outside of the shank serves as an anvil. The pattern is a predecessor of the above and the pincers are used for the same purposes.



Nos. 505, 506, 507

No. 508 Single joint

Length: $10\frac{1}{4}$ ", $9\frac{1}{2}$ " or 8" (260, 240 or 200 mm)

Width: $\frac{3}{4}$ " (19 mm)

The jaws are finely toothed at the point and have milled teeth and thread channel farther in. The grooving on the outside of one shank serves as a pry. The form of jaws gives these pincers great stretching power. Will be found suitable for making heavy boots of waterproof leather and are one of the older types of shoemakers' tools. Are made in three sizes of lengths.



No. 508

SHOEMAKERS' TOOLS

LEATHER PINCERS

The pincers listed on this sheet are designed for daily, continuous use, as in shoe factories and by shoemakers specializing in handmade footwear. The larger types have double joint and the smaller ones BERG Special single joint which will stand continuous hard wear during the longest time.

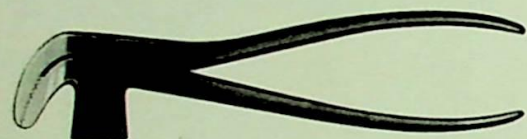


No. 510

No. 510 Double joint

Length: 9" (225 mm)
Width of jaws:..... $\frac{3}{8}$ " (10 »)

These pincers have sharply curved jaws with well-fitting milled teeth. The anvil is forged in one piece with the shank and has a grooved face. Double joint. Suitable for handling thin leathers and the making of modern light shoes by hand.



No. 511

No. 511 Special single joint

Length: 8" (210 mm)
Width of jaws:..... $\frac{3}{8}$ " (9 »)

Essentially of the same pattern as the preceding but with single joint, which makes them slightly smaller and thinner. Suitable for handling thin leathers and the making of light, handmade shoes.



No. 512

No. 512 Double joint

Length: $9\frac{1}{2}$ " (240 mm)
Width of jaws:..... $\frac{1}{2}$ " (12 »)

Have an interchangeable anvil screwed into the lower shank, of round section and with the face grooved. Double joint and well-fitting milled teeth in the jaws. Suitable for handling thin leathers and are chiefly used in shoe factories to supplement shoe manufacturing machines.



No. 1512

No. 1512 Special single joint

Length: $8\frac{3}{4}$ " (220 mm)
Width of jaws:..... $\frac{9}{16}$ " (14 »)

Pincers with interchangeable, round anvil with grooved face, screwed into the lower shank. Suitable for handling thinner kinds of leather and used both in shoe factories and by makers of handmade shoes.

SHOEMAKERS' TOOLS

EYELET HOLE-PUNCHING AND EYELETING PLIERS

Eyelet Hole-Punching Pliers

No. 535 Single joint

Single eyelet punching pliers. The punch works against a brass die plate and different sizes of punches can be used. Light to work and cut a clean hole; are used by shoemakers, sailmakers, upholsterers, harness-makers &c.

Length: 7"
Punches: 3.5 4 4.5 5 5.5 6 6.5 mm

For ordering separate punches: e. g. No. 535-3.5

Punches of other sizes up to 10 mm made to special order.



No. 535

No. 1535 Special single joint

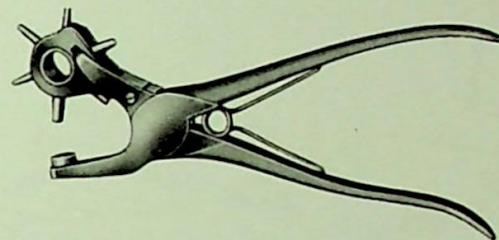
Fitted with 6 different-sized hole punches in a revolving head, which can be set with a single manipulation for the required size hole. Works against a brass die plate. Is a good tool and in growing favour due to the rigid design and fine workmanship, high grade material of the pliers and punches, and the accurate adjustment of the latter. Used by shoemakers, sailmakers, upholsterers, harnessmakers &c.

Length: 9"
Diameter of punches: 2 3 4 4.5 5.5 6.5 mm

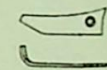
For ordering separate punches: e. g. No. 1535-5.5

Punches of other sizes made to special order.

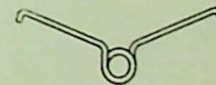
N. B. Turn head from right to left (forwards) or the stop spring may be broken.



No. 1535



Stop spring



Shank spring

Eyeletting Pliers

No. 536 Single joint

The carefully ground and fitted dies of the pliers ensure that the teeth of the eyelet are properly buried in the leather, producing a smooth and uniform beading of the eyelet so that even the thinnest silk stocking can not be damaged by rough edges. The eyelet must naturally fit the mandrel and not be too small, in which case they should split and leave rough edges. Used by shoemakers, harnessmakers, sail and tent makers, awning manufacturers &c.

Length: 7"
Dies: Four different ones (Nos. 1, 2, 3, 4) and fit eyelet of 6, 7, 8, 10 mm resp.

For table showing the relation between mm and inches, see the back of the indexleaf.



No. 536

SHOEMAKERS' TOOLS

NIPPERS: Shoemakers', Shoe-Tack, Diagonal Cutting Nippers, Hole Punches



No. 524

Shoemakers' Nippers

No. 524

Cutting nippers used by shoemakers and cobblers to tear off old soles and heels. On account of the greater power they are superior to top-cutting nippers Nos. 522 and 523 which are used for the same purpose.

Length: 7" 8"

Cut iron wire up to: B.W.G. No. ... 11 (3) 11 (3 mm)

Finish: Black, polished or nickel-plated



No. 529

Shoe-tack Nippers

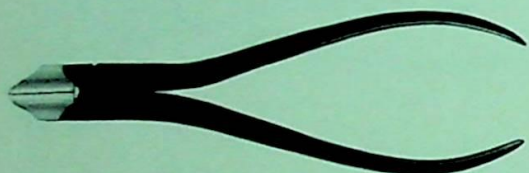
No. 529 Special single joint

Side-cutting nippers with extra long shanks, which make them especially suitable for cutting off nails and tacks inside boots and shoes. Supplied with straight or bent shanks. Used by cobblers, shoemakers and in shoefactories.

Length: 12" (300 mm)

Cut iron wire up to: B.W.G. No. 14 (2 »)

Finish: Black



No. 1529

Diagonal Cutting Nippers

No. 1529 Special single joint

Side-cutting nippers with powerful, extended cutting edge which, owing to the great slant, makes it an excellent tool for pulling out nails and pegs which have been driven in very far. The shape of the jaws makes them very serviceable for work inside the shoe. For this special purpose these nippers are superior to the commonly used patterns Nos. 526 and 1525.

Length: 6 1/2"

Cut iron wire up to: B.W.G. No. 13 (2.5 mm)

» hard steel » » » » 17 (1.5 »)

Finish: Black, polished or nickel-plated

Hole Punches

BERG Hole Punches are made of the best material, with accurate dimensions and fine finish. Special care is taken to make the punch bright and smooth on the inside as well which serves to release the material quickly and make perfect holes.

It is a tool for shoemakers and harnessmakers that also finds a place in the tool kit of pipe fitters, motorcar repairers and various kinds of mechanics.



No. 749

No. 749 Without Bridge

Small hole punches, ranging in size from 1—11 mm holes, are made without bridge.

If specially ordered hole punches will be made for holes of any desired form: oval, triangular, square and other forms.

Diameter: 1—11 mm

For table showing the relation between mm and inches, see the back of the indexleaf. When ordering, please specify in mm.

(With Bridge: See under group Y, page 8)

To this group of SHOEMAKERS' TOOLS can also be included the following Nippers and Pincers: Nos. E 40, 515, 523, 527, 540 and 541. They will be found under the group of PLIERS (U).

VARIOUS TOOLS

INDEX Y

Article	Page	Article	Page
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In case where millimetre is indicated, please refer to millimetre.

Notes:

E. A. Berg Mfg. Co., Ltd., Eskilstuna, Sweden

V
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TOOLS

Y

Notes:

E. A. Berg Mfg. Co., Ltd., Eskilstuna, Sweden

VARIOUS TOOLS

BOLT CLIPPERS

BERG Bolt Clippers are of extra superior quality in respect of strength and workmanship. All parts are drop forged and not of malleable cast iron as in the case of many makes of bolt clippers. Being forged and of a superior material they may be considerably overstrained without injurious effects. All parts are interchangeable and the cutting edges may be adjusted by links or yokes. After re-grinding the cutting edges can always be adjusted so as to produce perfect contact along the whole edge. The large selection of forms and sets of the cutting edges enables users to procure a bolt clipper for every special purpose.

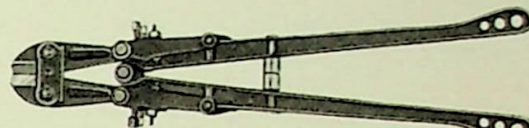
No. 1559

Ordinary type with longitudinal cutting edges. The most suitable pattern for cutting bolts, screws, concrete reinforcement bars, heavy iron wire &c. An indispensable tool for workshops engaged in repairs and construction, for hardware dealers, metal warehouses &c.

Length:	18"	24"	30"	36"
Cut Ø bolts up to:	5/16"	3/8"	1/2"	5/8"

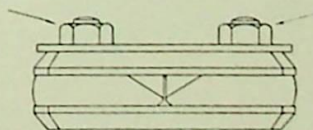
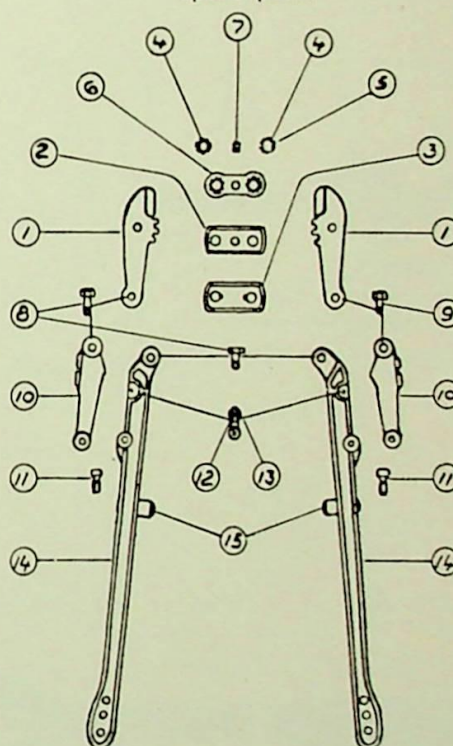
Spare parts:

1. Cutting edge, left hand
» » right hand
2. Top plate
3. Lower plate
4. Cutting edge screws (two)
5. Nuts for same (two)
6. Lock plate
7. Screw for same
8. Joint screw, centre
» » left hand
9. » » right hand
10. Yoke, left hand
» » right hand
11. Support screws (two)
12. Stop screws (two)
13. Nuts for same (two)
14. Shank, left hand
» » right hand
15. Buffers (two)

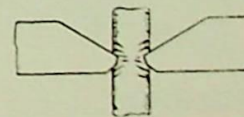


No. 1559

Spare parts



Caution: The nuts on No. 1559 jaws should always be screwed up tightly.



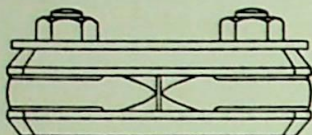
N. B. 24" can be obtained with cutting edges specially designed according to accompanying sketch for cutting off snow chains.

BERG Bolt Clippers are in general intended for cutting iron and annealed steel wire.

Cutting jaws hardened for cutting harder material may be obtained at slightly higher prices.

VARIOUS TOOLS

BOLT CLIPPERS: *With Centre, Diagonal or Top-Cutting Edges*



No. 1559 CS
(The illustration shows the position of the cutting edges)

With Centre-cutting Edges

No. 1559 CS

Similar to No. 1559 but the jaws have centre-cutting edges which are preferred when close cutting is not necessary. Purpose same as the preceding.

Length:	18"	24"	30"	36"
Cut Ø bolts up to:	$\frac{5}{16}$ "	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "

Spare parts: Same as for No. 1559



No. 1559 VS
(The illustration shows the position of the jaws)

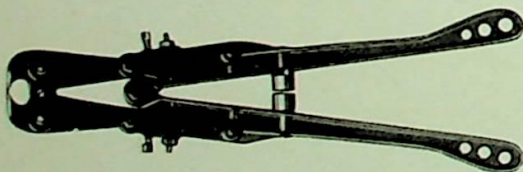
With Diagonal Cutting Edges

No. 1559 VS

Act as side-cutting pliers of large size and great power, and in this way facilitates getting into inaccessible places.

Length:	24"
Cut Ø bolts up to:	$\frac{5}{16}$ "

Spare parts: Same as for No. 1559



No. 1559 TS

With Top-cutting Edges

No. 1559 TS

These clippers are very serviceable for supplementing ordinary bolt clippers, because they enable the bolt to be cut off close to some other object such as a rivet head, a nut, projecting ends of the bolt in a beam or any other place, difficult to get at with ordinary bolt clippers.

Length:	18"	24"
Cut Ø bolts up to:	$\frac{5}{16}$ "	$\frac{3}{8}$ "

Spare parts: Same as for No. 1559

VARIOUS TOOLS

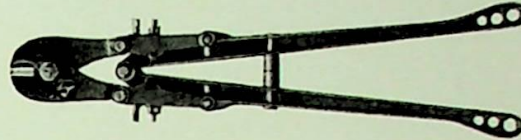
BOLT CLIPPERS: For Wire Rope or with Shanks of Pressed Steel Plate

For Cutting Wire Rope

No. 1559 W

Longitudinal shear-cutting edges make these clippers adapted for cutting steel wire rope. For this purpose the clippers have a special device which, during the cutting, guides the wire rope. This tool is used by wire rope workers, telegraph pole erectors, boat builders, in aircraft works &c.

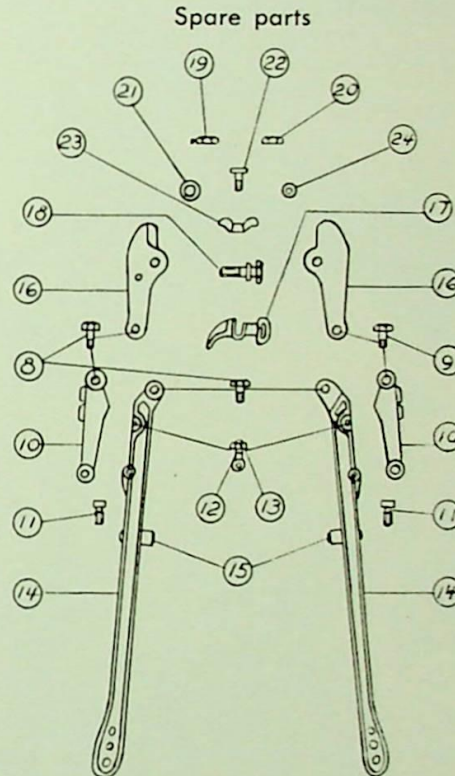
Length: 24" 30"
Cut wire rope up to: $\frac{3}{8}$ " $\frac{1}{2}$ "



No. 1559 W

Spare parts:

8. Joint screw, centre
9. » » left hand
10. » » right hand
11. Yoke, left hand
12. » right hand
13. Support screws (two)
14. Stop screws (two)
15. Nuts for same (two)
16. Shank, left hand
17. » right hand
18. Buffers (two)
19. Cutting edge, left hand
20. » right hand
21. Support cleat
22. Cutting edge screw
23. Nut for same
24. Lock nut for same
25. Iron washer for same
26. Bolt for support cleat
27. Thumb nut
28. Brass washer



Spare parts

With Pressed Steel Plate Shanks

No. 2559

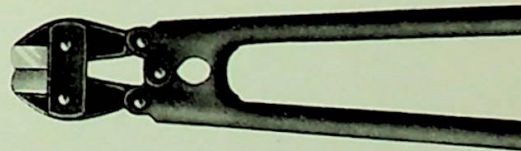
These light and very handy bolt clippers with shanks of pressed steel plate are used when No. 1559 is rated as too powerful and where an ordinary nipper proves to be insufficient.

Length: $12\frac{1}{2}$ "

No replacement parts.

Bolt clippers with special hardened jaws for cutting piano wire up to B.W.G. No. 8 (4 mm) may be obtained on special request.

If nothing special is stated, when ordered, bolt clippers with ordinary hardening will be shipped.



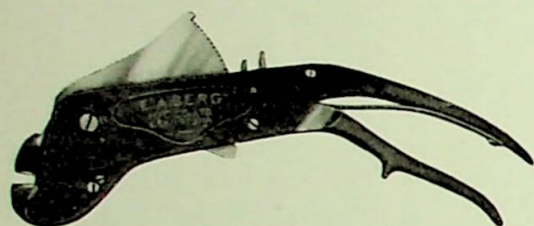
No. 2559

VARIOUS TOOLS

BOLT CLIPPERS: Bolt and Nut Clipper No. 3640

The Bolt and Nut Clipper of this special design which through a power of 99 lbs (45 kg) at the shanks produces the extraordinary cutting power of approx. 6000 lbs (3000 kg) at the jaws, was originally intended to be used in garages and motorcar repairshops for rapidly cutting bolts and nuts in order to loosen fenders and such like, that has been damaged through collision or by other cause in need of repairing. It has now been proved that the original purpose of the clipper has been greatly widened and that the tool through its easy-to-handle and unique power has been very much approved of in mechanical workshops, ship yards and similar plants.

As the jaws are made to be replaced and are offered for cutting different hard materials its purpose has very much increased.



No. 3640

Length of clipper: 14" (35 cm)

Regarding the construction of the clipper we notice at once the very ingenious mechanism, connecting both with the lever, the gearshift and the knee-power, by which the handpressure on the shanks is multiplied about 75 times and that one without difficulties, according to the jaw being used, very easily will cut the following materials, stated as example.

Standard Jaws (ill. 1). With these, bolts of common soft iron up to $\frac{3}{8}$ " diameter and nuts up to $\frac{5}{16}$ " can be cut. Also common charcoal steel, annealed and hardened, can be cut: e. g. silver steel up to $\frac{3}{8}$ " diameter.



Fig. 1
Standard jaws



Fig. 2
Medium jaws

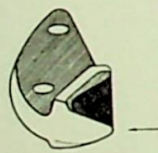


Fig. 3
Hard jaws

Medium jaws (ill. 2). These ought to be used for cutting metals of harder grade, such as hard steel wire, chrome-nickel wire and stainless materials up to the size of $\frac{1}{4}$ " (6 mm).

Hard jaws (ill. 3). These are finally used for cutting snow chains up to $\frac{1}{4}$ " (6 mm). Snow chains represent as known a very unusual grade of hardness.

If nothing special is stated about the jaws when ordered, the clipper with standard jaws will be shipped.

Spare parts: See page Y 6

VARIOUS TOOLS

BOLT CLIPPERS: *Bolt and Nut Clipper No. 3640*

How to use BERG Bolt and Nut Clipper

First take hold of the clipper as shown by ill. 4, whereat the pawl and feeding hook are loosened by the thumb of the right hand, the sector is then brought back with the fingers of the left hand and the shanks open themselves.

The clipper is now ready to be used (ill. 5) and the jaws are set around the object which has to be cut, being done by a cutting movement by which the gear sector feeds the enclosed jaw forward until the cutting is completed.

If difficulties should arise, after the cutting has been completed to bring the gear sector back to its starting point, the moveable shank is then pressed against the stationary one whereupon the pawl is loosened and held back, let then go of the moveable shank, bring the feeding hook back and the gear sector is free.

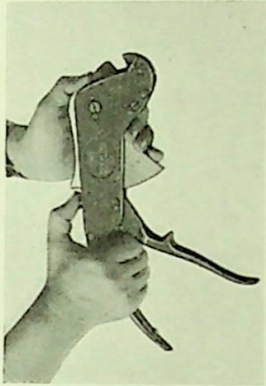


Fig. 4



Fig. 5

The illustrations below (6 and 7) show very clearly the great possibilities of speedy work that can be obtained by the use of BERG Bolt and Nut Clipper No. 3640. In many cases one can take for granted that bolts and nuts are rusted together, at least on the lower part of the chassies. Especially after smash-ups it happens that bolts and nuts are bent, making it necessary to use hammer and chisel in order to loosen them unless BERG Bolt and Nut Clipper No. 3640 is not on hand. In that case the work can be done in half the time. One can also without difficulties imagine what an uncomfortable position the worker must be in, chiselling away bolts and nuts in situations as shown in these illustrations.

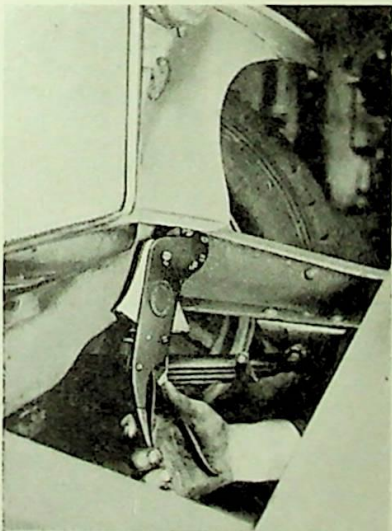


Fig. 6

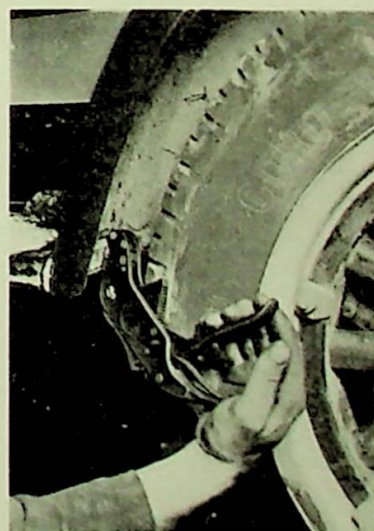
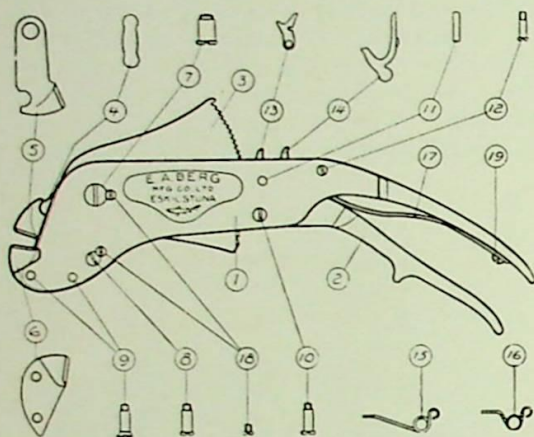


Fig. 7

VARIOUS TOOLS

BOLT CLIPPERS: *Bolt and Nut Clipper No. 3640*

Spare parts



Spare parts

1. Frame with stationary shank
2. Moveable shank
3. Gear sector
4. Link
5. Moveable jaw
6. Stationary jaw
7. Sector bolt
8. Bolt for moveable jaw
9. Screws for stationary jaw (two)
10. Bolt for moveable shank
11. Axil for pawl
12. Screw for pawl and feeding springs
13. Pawl
14. Feeding hook
15. Pawl spring
16. Feeding spring
17. Reverse spring
18. Lock screws (two)
19. Screw for reverse spring

VARIOUS TOOLS

PLATE SHEARS AND SARDINE TIN OPENERS

Plate Shears

Great demands are made on the edges and the joint of plate shears. When the shears are handled roughly during cutting, great strains are produced in the tool which will make it useless in a short time unless it is of the very best quality and workmanship. The bevel of the edge is 80° which has been found the most suitable for this class of cutting tool, combining good cutting capacity with strength and power. In order to obtain as rigid and vibrationless cutting edges as possible, and at the same time have the shanks adjustable, the cutting edges are of compound steel with the softer core material extended into the shanks. After regrinding the edges must be readjusted which is accomplished by bending the shanks.

Hole Shears

No. 582

These shears are made for cutting circular holes in sheet iron. A hole is made in the plate with a sharp point and the hole is afterwards cut from the starting point. The curved profile of the edge allows cutting curves of not too small a radius. Used by tinsmiths, sheetiron workers &c.

Length: 12"



No. 582

Pattern Shears

No. 583

The peculiar shape of the cutting edges of these shears enables the plate to be cut in curves of small radius. Used by tinsmiths, sheetiron workers &c. for cutting out more intricate patterns.

Length: 11"



No. 583

Common Plate Shears

No. 585

These shears of usual pattern are used in many kinds of trades although primarily a tool for tinsmiths and sheetiron workers. 10", 12" and 14" are supplied in both right and left patterns.

Length: 10" 11" 12" 13" 14"



No. 585

Sardine Tin Openers

No. 565

Although sardine and other tins are nowadays often provided with some sort of opening device these frequently fail, which make these shears very useful as a stand by. As a matter of fact, restaurants never rely on any opening device but always use these shears for opening tins. The shears are further very useful as small-size tin shears for instrument work and the like.

Length: 7"

Finish: Black, polished or nickel-plated



No. 565

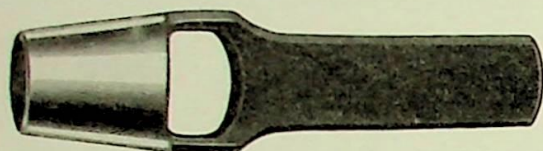
VARIOUS TOOLS

HOLE AND CENTRE PUNCHES AND RIVET HEADERS

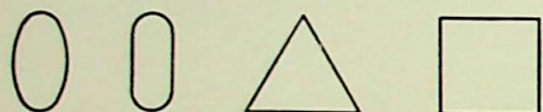
Hole Punches

BERG Hole Punches are made of the best material, with accurate dimensions and fine finish. Special care is taken to make the punches bright and smooth on the inside as well which serves to release the material quickly and make perfect holes.

It is a tool for shoemakers and harnessmakers that also finds a place in the tool kit of pipe fitters, motorcar repairers and various kinds of mechanics.



No. 749



For Irregular Holes

No. 749 With Bridge

The bridge of hole punches for 12 mm and larger holes facilitates the removal of the punched out material.

If specially ordered hole punches will be made for holes of any desired form: oval, triangular, square and other forms.

Diameter: 12—40, 42, 44, 46, 48 and 50 mm

For table showing the relation between mm and inches see the back of the general indexleaf. Please specify in mm when ordering.

(Without Bridge: See under group X, page 22)

Punches

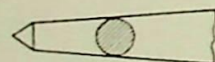
These tools are similar in principal and form, differing only in the shape of the point or nose. The hole punch is used for punching holes in tinplate and sheetiron, for driving down the head of nails &c. The centre punch is used for marking the starting point for drilling, for locking nuts &c. Rivet headers serve to shape the riveted head after the hammering.

Centre Punches



No. 998

Length: 4" 5" 6" 7"



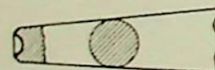
No. 998

Rivet Headers



No. 999

Length: 5" 6"



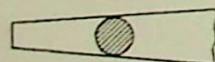
No. 999

Hole Punches



No. 1000

Length: 4" 5" 6" 7" 8" 9" 10" 11" 12"



No. 1000

VARIOUS TOOLS

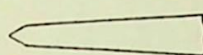
COLD AND CAPE CHISELS

Cold Chisels

Generally cold chisels have had their form determined for their particular function by the experience of many generations in practical hand work. The shank is as a rule of octagonal section but a more modern, flat section is also represented. The edge is ground with a 60° bevel and the pein or top end more or less bevelled. The hardening and tempering of cold chisels for a particular work requires great experience and judgement, as well as the choice of steel from which they are made.

No. 1001

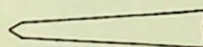
Length: 4" 5" 6" 7" 8" 9" 10" 11" 12"



No. 1001

No. 1002

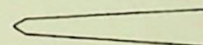
Length: 6" 7" 8" 9" 10" 11" 12"



No. 1002

No. 1003

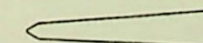
Length: 4" 5" 6" 7" 8" 9" 10" 11" 12"



No. 1003

No. 1004

Length: 4" 5" 6" 7" 8" 9"



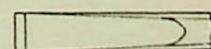
No. 1004

Cape Chisels

No. 1012

Used for cutting grooves and recesses; have shanks of flat section and the edge at right angles with the flat side of the shank. The pein end has a rather long bevel.

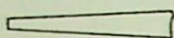
Length: 5" 6" 7" 8"



No. 1012

VARIOUS TOOLS

CAULKING CHISELS AND COLD CHISEL SETS



No. 1013



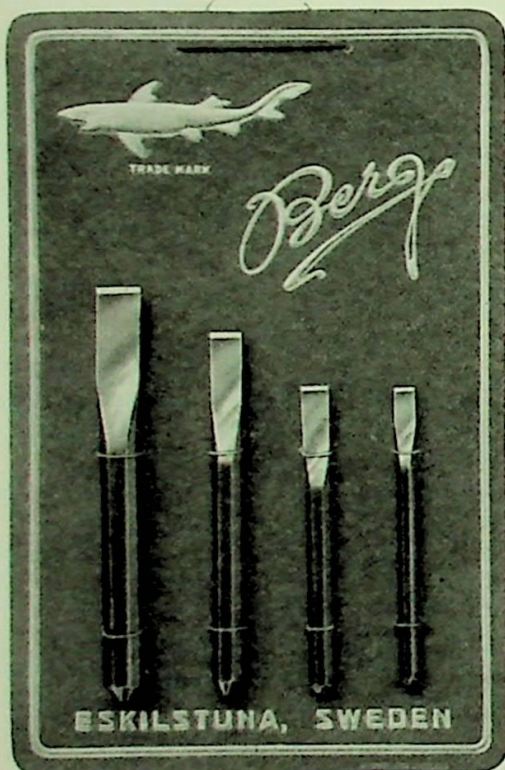
Caulking Chisels

No. 1013

Resemble in general form cold chisels No. 1003 but the edge is made for upsetting the plate at the seams of ships and boilers &c., and consequently is of rectangular flat form instead of being bevelled to a point.

Length: 6" 7" 8"

No. 1



(Measure: 11" x 7")

Card No. 1 contains a set of chisels of sizes and width of edge that suit machine shops and tool rooms of power plants, ships &c.

Separate Chisels:

Nos. 1018/6" 1018/5" 1018/4 1/2" 1019/4 1/2"

Cold Chisel Sets

No. 2



(Measure: 11" x 7")

Card No. 2 contains a selection of small handy chisels of different forms of edge, suitable for light work; for tool makers, instrument makers, repairers &c. Also useful for stone carvers as well as many other tradesmen.

Separate Chisels:

Nos. 1017/5" 1016/5" 1015/5" 1014/5"

VARIOUS TOOLS

HAND VICES AND HOOF CLIPPERS

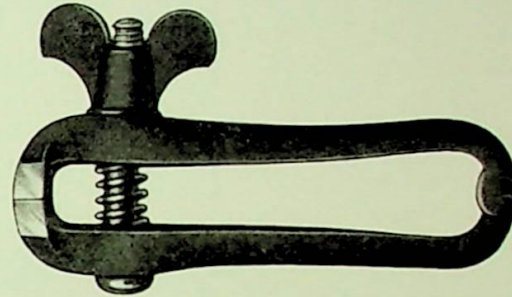
Hand Vices

These wellknown tools for clamping small objects when filing or doing other work or adjustments are strongly and well made. The faces of the jaws are check-toothed by hand, and have cross grooves for holding wire. They are self opening, having a spring placed between the shanks. The thumb nut is extra large with a strongly threaded heavy bolt. Used by all kinds of mechanics and craftsmen, amateurs &c.

No. 700

An up-to-date pattern of hand vice, designed for providing a convenient hold in the hand.

Length: $4\frac{3}{8}$ " (110) 5" (125) $5\frac{1}{2}$ " (140 mm)
Gap:..... $\frac{9}{16}$ " (15) $\frac{3}{4}$ " (20) $\frac{3}{4}$ " (20 »)
Width of jaws: $1\frac{1}{8}$ " (30) $1\frac{1}{4}$ " (33) $1\frac{5}{8}$ " (40 »)

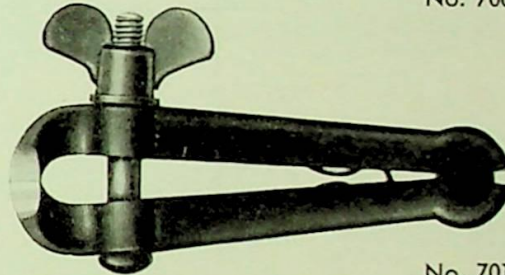


No. 700

No. 701

Usual model of hand vice.

Length: 4" (100) 5" (125) 6" (150 mm)
Gap:..... $\frac{9}{16}$ " (15) $\frac{5}{8}$ " (17) $\frac{7}{8}$ " (22 »)
Width of jaws: $1\frac{1}{8}$ " (30) $1\frac{3}{8}$ " (35) $1\frac{5}{8}$ " (40 »)



No. 701

Hoof Clippers

These clippers are primarily intended for trimming the hooves of cattle and pigs. In general design they are like bolt clippers, having long shanks or handles, the power being multiplied by an eccentric link mechanism. The clippers are warranted for trimming hooves but not for cutting metal objects, however tempting this may be at times. The material, form and hardening of the cutting edges are adapted for the task of cutting smoothly and to correct shape the horny substance of which the hooves are formed. BERG Hoof Clippers are highly appreciated for these qualities and their durability.

No. 550

The design of these clippers admits not only trimming round the hooves, but also between and at the sole of the hooves, which ordinarily requires special tools. The latter operations require some practice, but when acquired, the good qualities of the clippers are fully appreciated.

Length: 31" (80 cm)



No. 550

No. 550 G (Old Pattern)

Clippers of end cutting type which are merely intended for cutting the hooves. The trimming in between and at the sole is done with a knife or special tool.

Length: 30" (75 cm)



No. 550 G

Separate jaws may be obtained.

VARIOUS TOOLS

HOOF PARING, TILE CUTTING KNIVES AND MISCELLANEOUS TOOLS



No. 1005

Hoof Paring Knives

No. 1005

Made from prime steel which, when sharpened, possesses high cutting power and durable sharpness. Of flat section, with double-bevelled edge along one side. The blade is held in the hand during the paring, which is done with the aid of a wooden mallet. The sharpening of about one third of the length is done by the purchaser. The knife is used both for paring and smoothing the sole of the hoof before putting on the shoe.

Length: 12"



No. 1006

Tile Cutting Knives

No. 1006

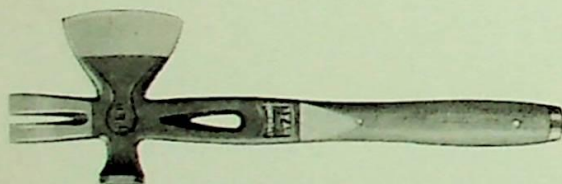
An indispensable tool for cutting tiles to shape when tiling walls and floors, mantelpieces, fireplaces &c. Great demands are made on the quality of the steel and hardening of these tools on account of the hardness and grittiness of the material to be cut, viz. tiles and slabs of earthenware and cement, bricks &c. Can be obtained at the same price with a crescent-shaped recess in the upper part.

Length: 6 1/2"

Made in two thicknesses:

B. W. G. No. 15 (1.8 mm) and 18 (1.3 mm)

Knives with thickness B. W. G. No. 15 (1.8 mm) are delivered if not otherwise specified.



No. 753

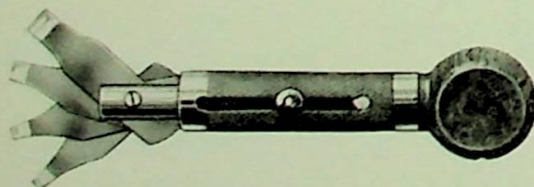
Miscellaneous Tools

Universal Hatchets

No. 753

Drop-forged from prime steel with extra strong reinforced birch handle. In addition to the hatchet the tool has a strong and handy jemmy and nail puller, which makes it very convenient in warehouses, in the house for opening cases &c. and in boats and motor cars for different jobs.

Length: 12 1/2" (315 mm)



No. 750

Screw Drivers

No. 750

The handle contains four screw drivers of different sizes; the one wanted can be pushed out and fixed for use, while the others remain inside. The screw drivers are made from prime steel and properly hardened.

Length: 4" (100 mm)

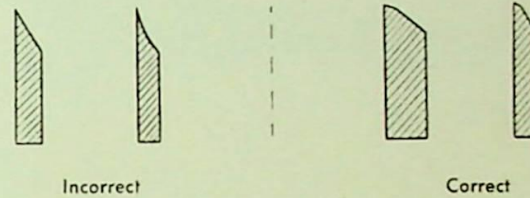
VARIOUS TOOLS

HEDGE SHEARS

The chief use of these shears is indicated by the name, but they are useful for all kinds of light pruning of bushes and trees. The cutting capacity includes branches of finger thickness. They are for this reason provided with two crescent-shaped cutting edges near the joint, where the power is greatest and the branches are in this way prevented from sliding down the shears. This object is obtained in other shears by having the cutting edges toothed. The stop lugs between the handles should be filed off after regrinding in order to align the cutting edges in the new position. The handles slant upwards and at the same time are curved above the cutting level, which keeps the hands away from twigs during the work. The cutting edges are carefully hardened, and straightened and aligned separately. The directions for correct grinding should be carefully followed for obtaining the best results.

After regrinding, the edges must be well honed on both the *inside* and outside. If this is not done the edges will be destroyed after a couple of clippings. Use a fine-grained oilstone for the honing. Always grind on a *fine grindstone* with a liberal flushing of water. The adjoining illustrations show examples of incorrect and correct grinding.

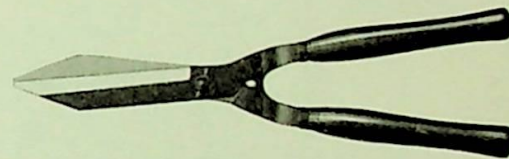
N. B. After every use it is of the greatest importance, never to forget to oil the edges.



No. 557

The most common used type of hedge shears with or without branch cutter.

Length of blades: 8" 9" 10"
Finish: Black, or black with branch cutter.
 Polished, or polished with branch cutter.

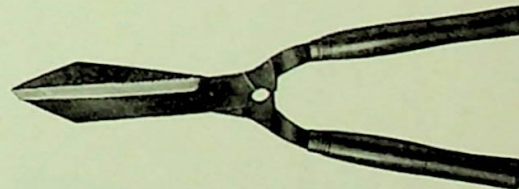


No. 557

No. 557 T With toothed blade

Similar to No. 557 but with toothed cutting edges which makes the cutting of coarse brushwood and undergrowth easier, as well as branches of not too great thickness.

Length of blades: 9"
Finish: Black with toothed edges.

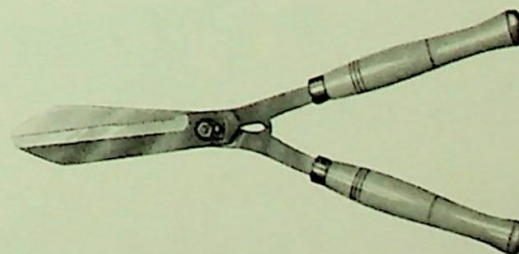


No. 557 T

No. 657 With toothed blade

Similar to the preceding but smaller and lighter and for that reason liked by ladies and amateur gardeners. The popular name is »Ladies Shears», but for all that, it is a powerful tool despite its small dimensions.

Length of blades: 7"
Finish: Blue-japanned with locknut and toothed edges.

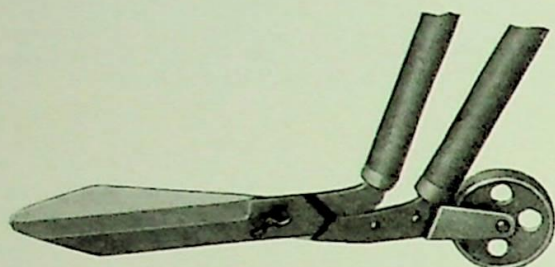


No. 657

VARIOUS TOOLS

GRASS SHEARS

For trimming the edges of lawns and cutting grass in places inaccessible to a lawn mower.



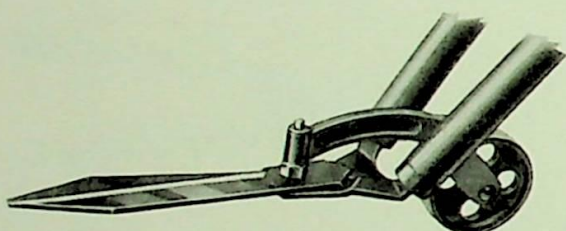
No. 552

No. 552 Vertical blades

Designed for trimming the edges of lawns and for this reason have cutting edges working in a vertical direction. Have long wooden handles for enabling a person to work in an upright position. The work can be further lightened by fitting a roller on one of the shanks.

Length of blades: 8" (21 cm)
» » handles: 32" (82 »)

With or without roller.



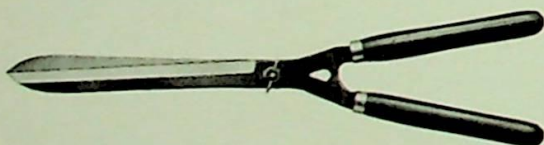
No. 553

No. 553 Horizontal blades

With horizontal blades but otherwise resembling No. 552. The shears may be equipped with a roller which is fitted in a fork, passing between the handles and pivoted on an extension of the joint bolt. Useful for cutting grass between flower beds, in rock gardens, terraces &c.

Length of blades: 8" (21 cm)
» » handles: 32" (82 »)

With or without roller.



No. 554

No. 554

Long, slender blades set at an angle of 30° with the handles, which protect the hands during the work. For cutting grass, trimming hedges, pruning &c. on a small scale.

Length of blades: 10" (26 cm)
Total length: 23" (60 »)

For directions regarding grinding and honing of edges, see previous page.

VARIOUS TOOLS

FRUIT AND FLOWER NIPPERS AND SHEARS

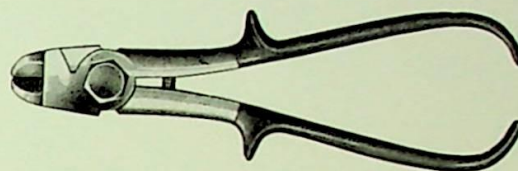
These tools are specially designed for cutting fruit and flowers in orchards and similar places, where large quantities of oranges, lemons, grapefruit, grapes &c. have to be harvested. The cutting parts and joints are consequently made very strong and durable for such strenuous service, and special attention is paid to obtain a good and comfortable grip for not tiring the operator. BERG Fruit Nippers are much appreciated for the care bestowed on these features.

No. 621

The cutting jaws resemble those ordinary side-cutting nippers. The joint is made with a bolt and nut which can be set up according to need after long use. Two lugs on the shanks protect the hands, a valuable feature during long periods of continuous use. For harvesting fruit and flowers.

Length: $5\frac{3}{4}$ "

Finish: Black



No. 621

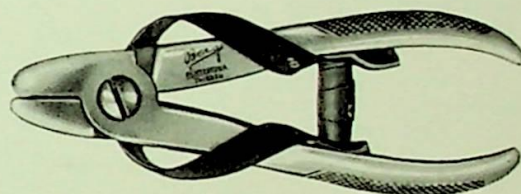
Orange Nippers

No. 623 Knurled shanks

The blunt, rounded-off nose enables the stem to be cut off close to the peel without injuring or scratching the latter. Knurled shanks of good shape conduce to give a secure and non-tiring grip. The leather strap round the fingers is a precaution against dropping the nippers during the work. The joint is adjustable and is locked in the desired position, ensuring good working and long life under all conditions. The nippers are forged (not pressed) and yet very light.

Length: 5"

Finish: Nickel-plated



No. 623

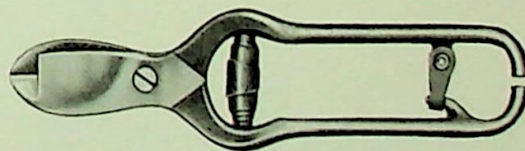
Orange Shears

No. 641

Very handy and at the same time light shears for cutting oranges &c. One of the jaws is equipped with a lug, enabling the stem to be cut off close to the peel without injuring or scratching the latter. The shanks are provided with a clasp for saving the edges and the shears should be hung up closed when not in use.

Length: $6\frac{1}{4}$ "

Finish: Black



No. 641

VARIOUS TOOLS

SECATEURS

BERG Secateurs are forged throughout from the best Swedish steel and are carefully tested by cutting iron wire before they are sent from the factory. In order to preserve the edge the secateurs are provided with a clasp, and should be put away and hung up closed when not in use.



Incorrect



Correct

After regrounding, the edges should be well honed on both the outside and inside of the edges. If this is neglected the edges will be destroyed after using a few times.

Use a fine-grained oilstone for the honing and a fine grindstone for the grinding with an ample supply of water.

Examples of incorrect and correct form of the edge are shown here.

N. B. After every use it is of the greatest importance, never to forget to oil the edges.



No. 625

No. 625 Knurled shanks

Interchangeable jaws and joint with bolt, nut and locknut. This arrangement enables the joint to be adjusted for compensating the wear and in this way makes the secateurs function well an infinite length of time. Only the convex jaw has a sharpened edge. The shanks are knurled and the top one provided with slip protector. For market gardeners, fruit growers, florists, farmers and private house owners.

Length: 8" 9"

Finish: Single edged Locknut and iron clasp.



No. 626

No. 626 Knurled shanks

Knurled shanks with a comfortable grip and the same kind of joint as the preceding, but with fixed instead of interchangeable jaws. Both the concave and convex jaws have sharpened edges, providing a light and clean cut which latter especially adapts the secateurs for grafting. This is naturally of importance to fruit growers.

Length: 7" 8"

Finish: Double-edged Locknut and iron clasp.



No. 628

No. 628

Have only one jaw with sharpened edge and are in other respects of a plainer make than the two preceding types. The quality is just as good, however, and they are suitable for the same uses as the above.

Length: 9"

Finish: Blue-japanned shanks and iron clasp.

VARIOUS TOOLS

PRUNING SHEARS AND SICKLES

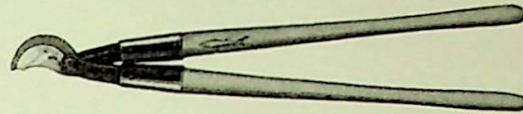
Pruning Shears

These pruning shears are fitted with long wooden handles for being worked with both hands. The jaws are of the usual concave and convex pattern, with sharpened edge on the convex jaw only. They are ideal shears for weeding and clearing out brushwood. Branches and roots up to 2" thick can be cut with little practice. Are largely used among foresters, nursery and park gardeners, builders, and others.

No. 556

Represents the most used type, with handles secured in sockets.

Length: 31" (80) 35" (90) 39" (100 cm)

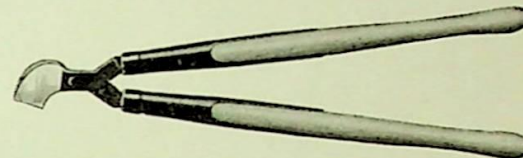


No. 556

No. 562

A smaller type of the same kind of shears. Sheet iron sockets are provided with extended reinforcement strips which attach the handles to the shears. The handles can in this way be made lighter without reducing the strength.

Length: 25" (64 cm)



No. 562

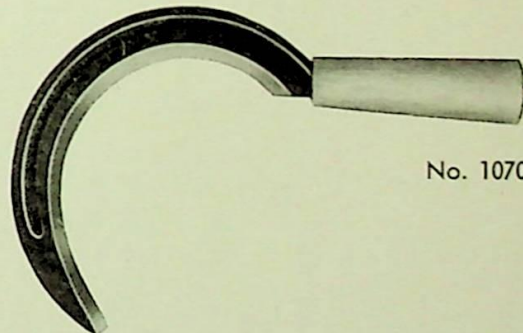
Sickles

These reaping hooks have been used since time immemorial and are represented by two styles. The length, measured across the curve, is practically the same for both and it is only in the angle of the handle in relation to the blade, that the styles differ. The difference is due to the habits and preferences of different users, and the purposes for which the sickles are to be used; for cutting grass, weeds, seaweeds &c.

No. 1070

The handle is fixed at an angle, so that the handle and the blade form a hook. The cutting involves a pull towards the user in combination with the swing. For cutting seaweed the handles can be lengthened.

Length: 12" (300 mm)

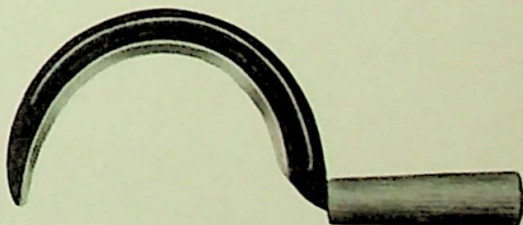


No. 1070

No. 1071

The handle forms an extension in the direction of the diameter, and the grass is best cut off with a simple swing movement.

Length: 12³/₄" (320 mm)



No. 1071

U.S. PATENT OFFICE

DEC 27 1951

DIVISION — 29



Öberg